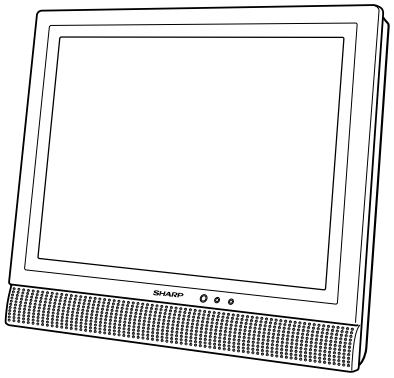
SHARP

SERVICE MANUAL

S72N2LC-13E1U



LCD COLOR TELEVISION

MODELS LC-13E1U/UB/UW LC-15E1U/UB/UW

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

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SHARP CORPORATION

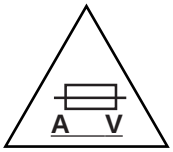
This document has been published to be used for after sales service only.
The contents are subject to change without notice.

IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be perfomed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:**

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.



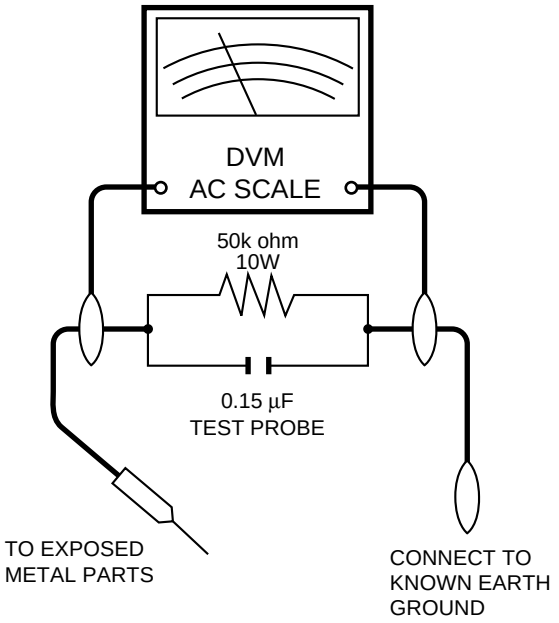
CAUTION: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE F3701 (2.0A, 125V), F6500 (1.6A, 125V) AND F6510 (1.6A, 125V) FUSE.

BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 110~240 volt AC outlet, and connect the DC power cable into the receiver's DC jack. (Do not use an isolation transformer for this test).
- Using two clip leads, connect a 50k ohm, 10 watt resistor paralleled by a 0.15µF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resisor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.
  All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)
  Any reading of 0.75V peak (this corresponds to 0.5 milliamp. peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

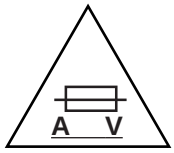
Many electrical and mechanical parts in LCD television have special safety-related characteristics.
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by " ⚠ " and shaded areas in the ***Replacement Parts Lists*** and ***Schematic Diagrams***.
For continued protection, replacement parts must be identical to those used in the original circuit.
The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

PRECAUTIONS A PRENDRE LORS DE LA REPARATION

■ Ne peut effectuer la réparation qu' un technicien spécialisé qui s'est parfaitement accoutumé à toute vérification de sécurité et aux conseils suivants.

AVERTISSEMENT

1. N'entreprendre aucune modification de tout circuit. C'est dangereux.
2. Débrancher le récepteur avant toute réparation.



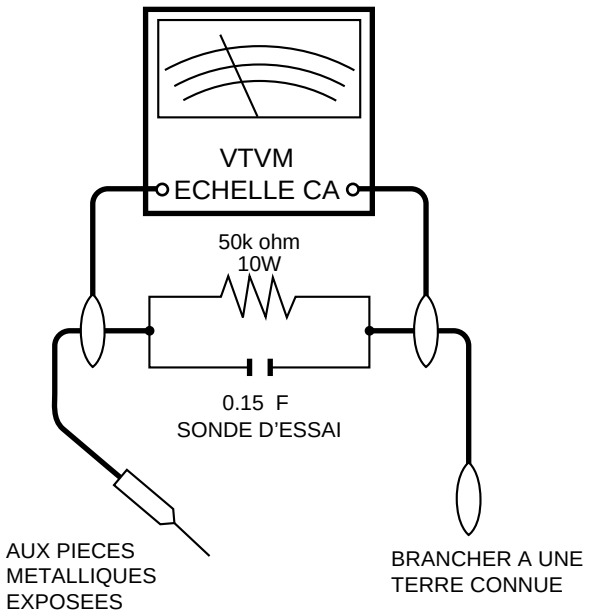
PRECAUTION: POUR LA PROTECTION CONTINUE CONTRE LES RISQUES D'INCENDIE, REMPLACER LE FUSIBLE PAR UN FUSIBLE DE MEME TYPE F3701 (2.0A, 125V), F6500 (1.6A, 125V), F6501(1.6A, 125V).

VERIFICATIONS CONTRE L'INCEN-DIE ET LE CHOC ELECTRIQUE

Avant de rendre le récepteur à l'utilisateur, effectuer les vérifications suivantes.

1. Inspecter tous les faisceaux de câbles pour s'assurer que les fils ne soient pas pincés ou qu'un outil ne soit pas placé entre le châssis et les autres pièces métalliques du récepteur.
2. Inspecter tous les dispositifs de protection comme les boutons de commande non-métalliques, les isolants, le dos du coffret, les couvercles ou blindages de réglage et de compartiment, les réseaux de résistance-capacité, les isolateurs mécaniques, etc.
3. S'assurer qu'il n'y ait pas de danger d'électrocution en vérifiant la fuite de courant, de la facon suivante:

- Brancher le cordon d'alimentation directem-ent à une prise de courant de 110-240V. (Ne pas utiliser de transformateur d'isolation pour cet essai).
- A l'aide de deux fils à pinces, brancher une résistance de 50 kΩ 10 watts en parallèle avec un condensateur de 0,15µF en série avec toutes les pièces métalliques exposées du coffret et une terre connue comme une conduite électrique ou une prise de terre branchée à la terre.
- Utiliser un voltmètre CA d'une sensibilité d'au moins 5000Ω/V pour mesurer la chute de tension en travers de la résistance.
- Toucher avec la sonde d'essai les pièces métalliques exposées qui présentent une voie de retour au châssis (antenne, coffret métallique, tête des vis, arbres de commande et des boutons, écusson, etc.) et mesurer la chute de tension CA en-travers de la résistance. Toutes les vérifications doivent être refaites après avoir inversé la fiche du cordon d'alimentation. (Si nécessaire, une prise d'adpatation non polarisée peut être utilisée dans le but de terminer ces vérifications.)
  Tous les courants mesurés ne doivent pas dépasser 0,5 mA.
  Dans le cas contraire, il y a une possibilité de choc électrique qui doit être supprimée avant de rendre le récepteur au client.



AVIS POUR LA SECURITE

De nombreuses pièces, électriques et mécaniques, dans les téléviseurs présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue. Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.
Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque " ⚠ " et hachurées dans la liste des pièces de remplacement et les diagrammes schématiques.
Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine. L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies, radiations X ou autres accidents.

Precautions for using lead-free solder

1 Employing lead-free solder

"All PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.
Example:

Sn-Ag-Cu Indicates lead-free solder of tin, silver and copper.

2 Using lead-free wire solder

When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.
As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40ºC, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldening bit, contact our service station or service ranch in your area.

3 Soldering

As the melting point of lead-free solder (Sn-Ag-Cu) is about 220°C which is higher than the conventional lead solder by 40°C, and as it has poor solder wettabillty, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be excoeded, remove the bit from the PWB as soon as you conurm the steady soldering condition.
Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to tum on and off the power of the bit as required.
if a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.
When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

Be careful when replacing parts with polarity indication on the PWB silk.
Special attention must be paid to coils of L6500-L6503.

Lead-free wire solder for servicing

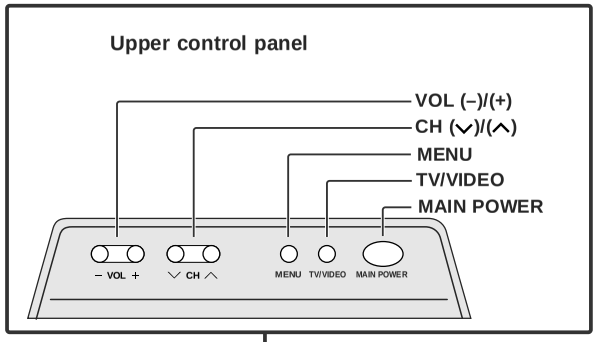
Part No,	★	Description		Code
ZHNDAi123250E	J	ϕ0.3mm	250g(1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm	500g(1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm	1kg(1roll)	BM

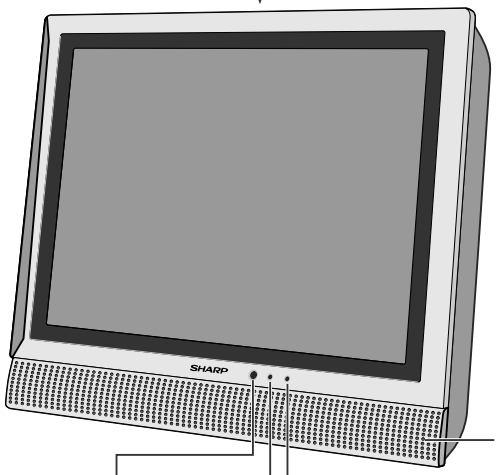
SPECIFICATIONS

Items / Model		LC-13E1U	LC-15E1U
LCD panel		13” ASV & BLACK-TFT LCD	15” ASV & BLACK-TFT LCD
Number of dots		921,600 dots VGA	
Video color systems		N358, N443, PAL, PAL-M, PAL-N, SECAM, PAL-60	
TV function	Destination	USA/Latin A/Twn	
	TV Standard (CCIR)	NTSC/PAL-M/PAL-N	
	TV Tuning System	PLL 181 ch.	
	STEREO	MTS+SAP	
	CATV	125 ch.	
4-LINE COMB FILTER		Yes	
Brightness		430 cd/m^2	
Lamp life		60,000 hours	
Viewing angles		H: 170° V: 170°	
Audio amplifier		2.1 W × 2	
Speakers		1 $^{3}/_{16}$ × 2 $^{15}/_{16}$ in. (3 × 7.5 cm), 2 pcs.	
Terminals	AV1	AV-IN1, S-VIDEO-IN	
	AV2	AV-IN2/AV-OUT	
	COMPONENT	COMPONENT-IN, AUDIO-IN	
	Antenna	F-Type	
	Headphone	Mini-jack for stereo (ø 3.5 mm)	
OSD language		English/French/Spanish	
Power supply		DC 12 V, AC 110–240 V, 50/60 Hz	
Weight		8.2 lbs. (3.7 kg), w/o accessories	9.9 lbs. (4.5 kg), w/o accessories
Accessories		Remote control, Batteries, Antenna cable, AC adapter, AC cord, Cable clamp, Operation manual	
Environmental conditions		0°C ~ 40°C	

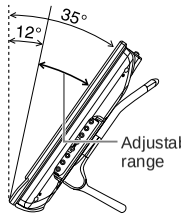
As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Main unit (front view)





The screen can be adjusted backwards to an angle between 12 degrees and 35 degrees. The screen cannot be set up straight. When changing the angle, make sure to hold the stand and adjust the screen to the best viewable angle.



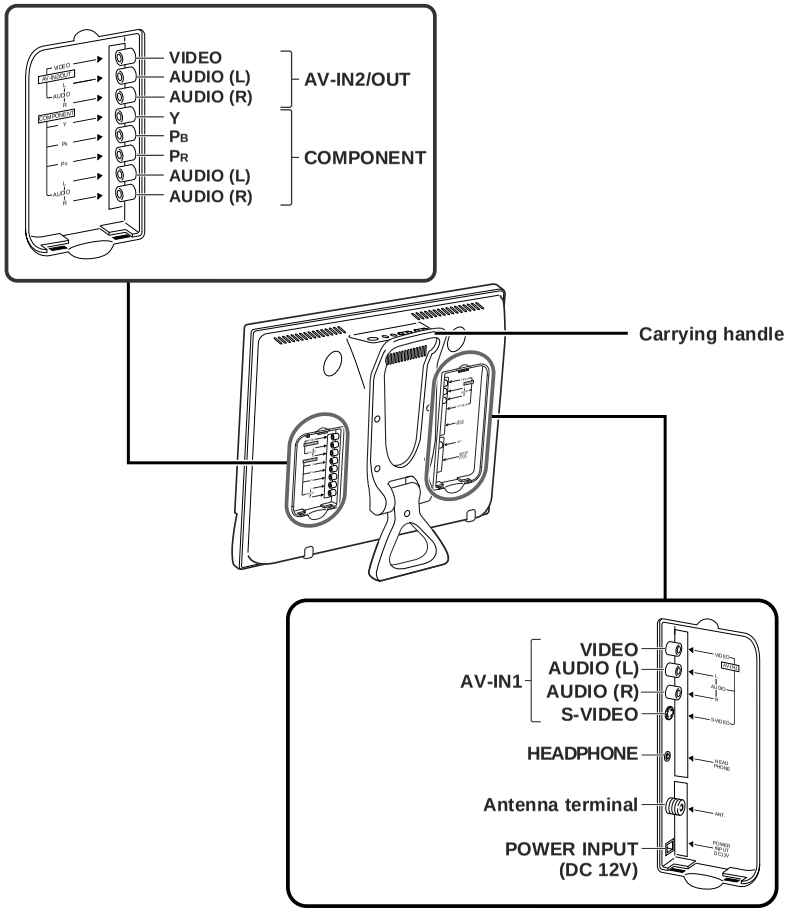
Remote sensor window

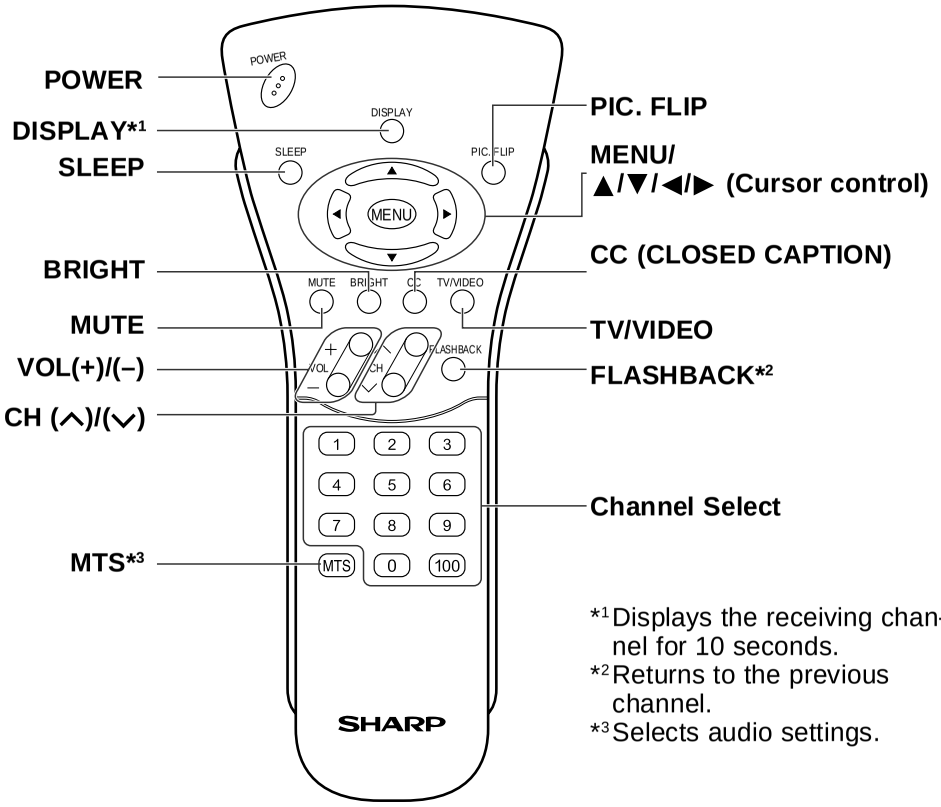
SLEEP indicator
The SLEEP indicator lights up red when the SLEEP TIMER is set to on.

POWER indicator
A green indicator lights when the power is on and a red indicator lights when in the standby mode (the indicator will not light when the main power is off).

NOTE
- **TV/VIDEO**, **CH (∨)/(∧)**, **VOL (–)/(+)** and **MENU** on the main unit have the same functions as the same buttons on the remote control. Basically, this operation manual provides a description based on operation with the remote control.
- The outer dimensions and placement of buttons, etc. may slightly differ between the LC-13E1U and LC-15E1U. However, the basic operations are the same.

Main unit (rear view)



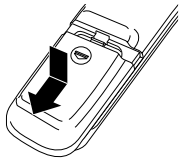


*1 Displays the receiving channel for 10 seconds.
*2 Returns to the previous channel.
*3 Selects audio settings.

Batteries for the Remote Control

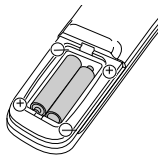
Before using the LCD TV set for the first time, install two (AAA size, UM/SUM-4) batteries (supplied). When the batteries become depleted and the remote control fails to operate, replace the batteries with new (AAA size, UM/SUM-4) batteries.

1 Open the battery cover.



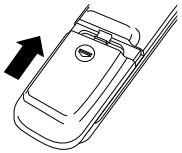
■ Slide the cover while pressing the (▼) part.

2 Insert two (AAA size, UM/SUM-4) batteries.



■ Position the positive and negative ends of the batteries as indicated in the compartment.

3 Close the battery cover.

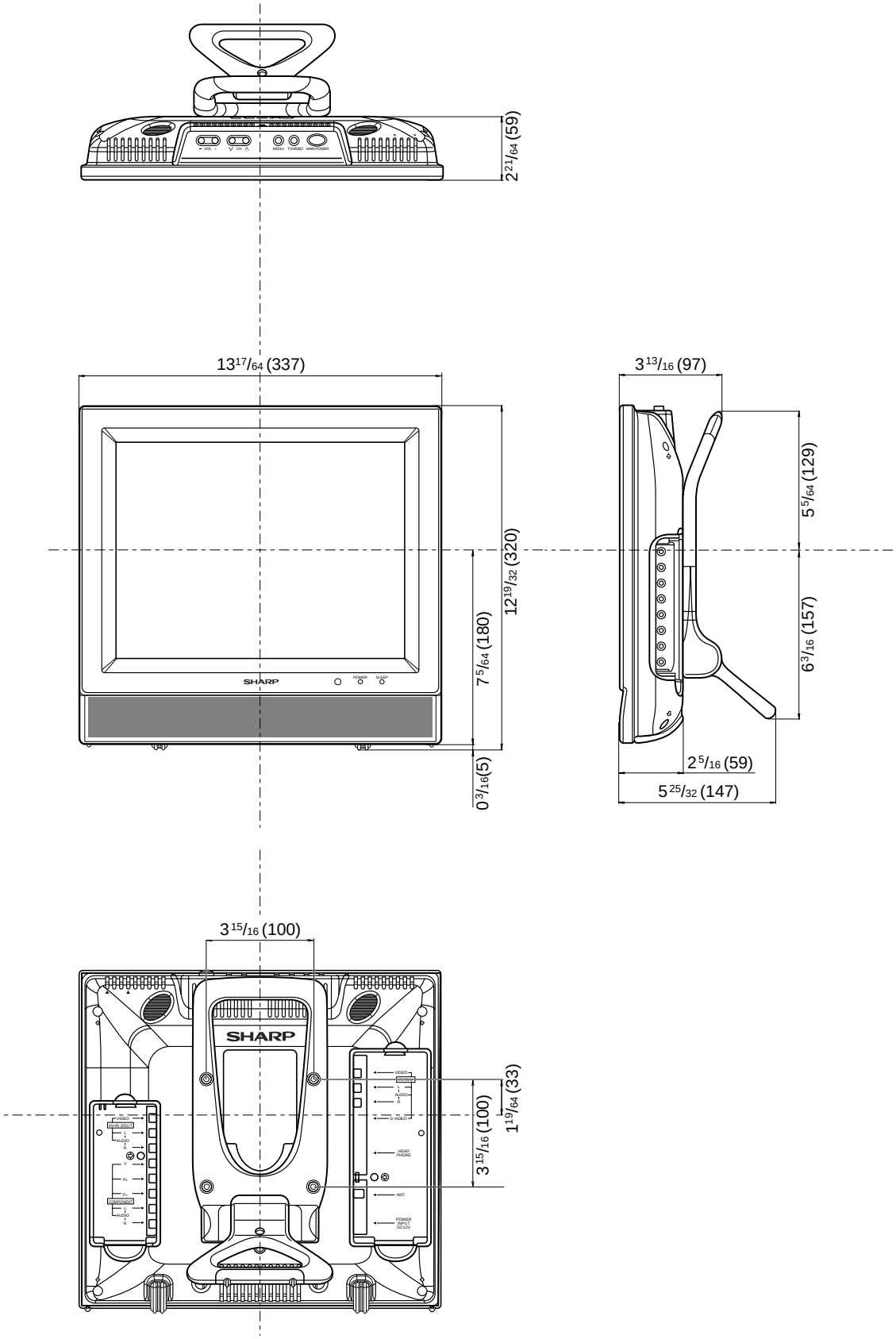


■ Engage the claw on the cover into the battery housing and slide shut.

DIMENSIONS

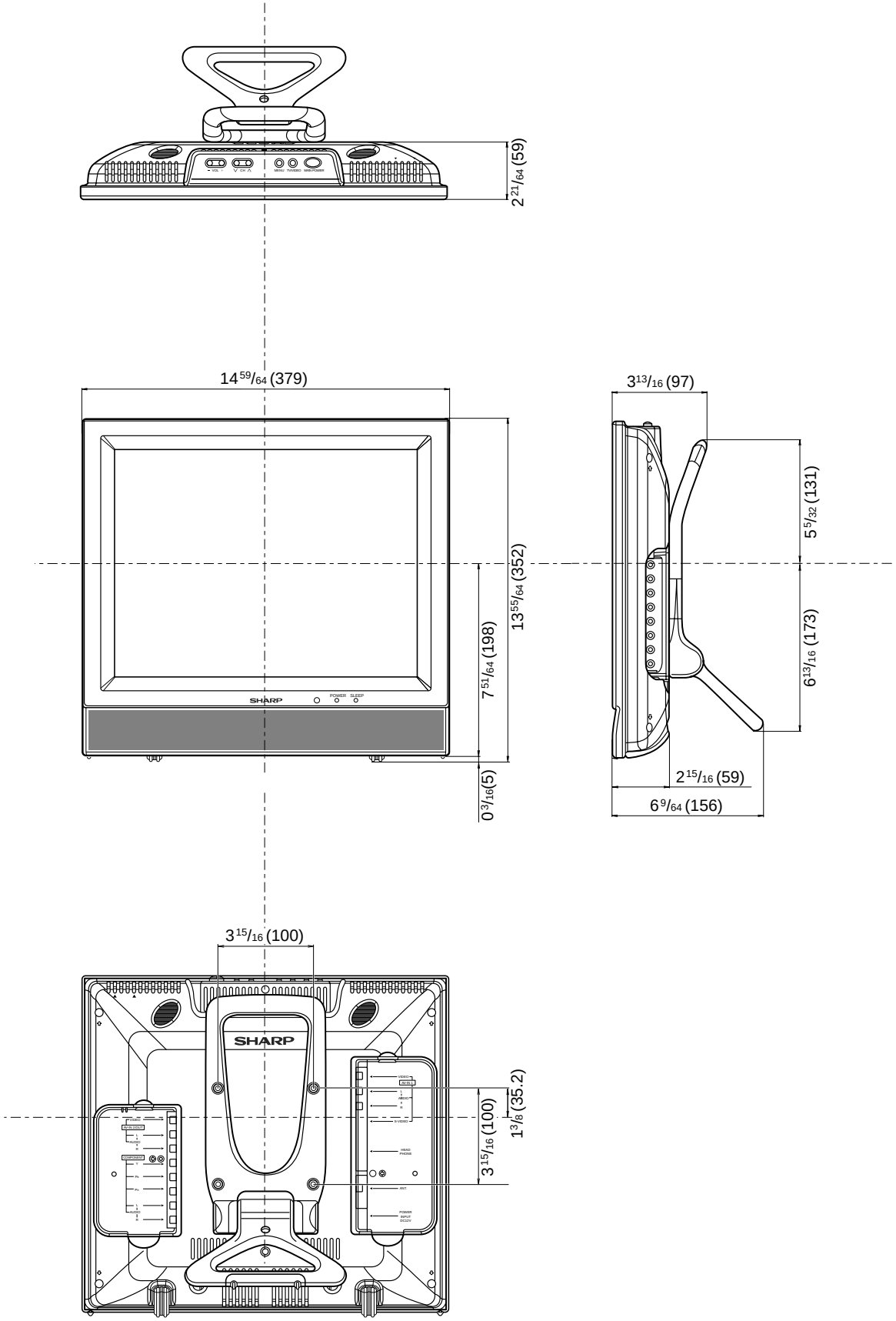
■LC-13E1U

Unit: inch/(mm)



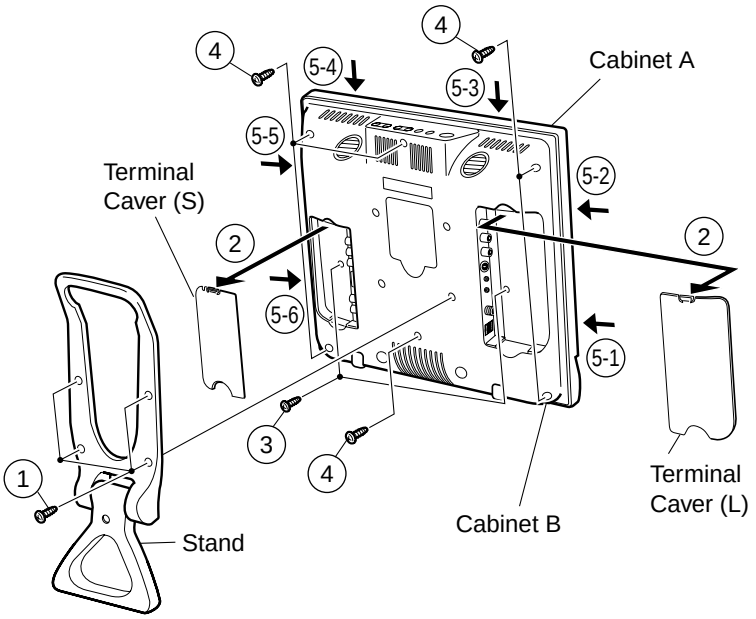
■LC-15E1U

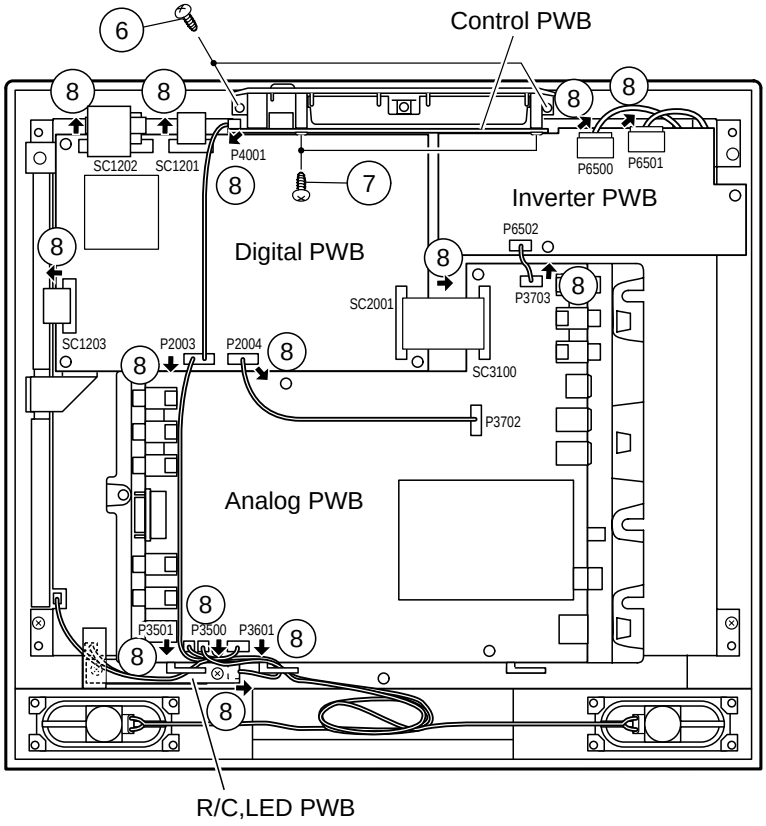
Unit: inch/(mm)



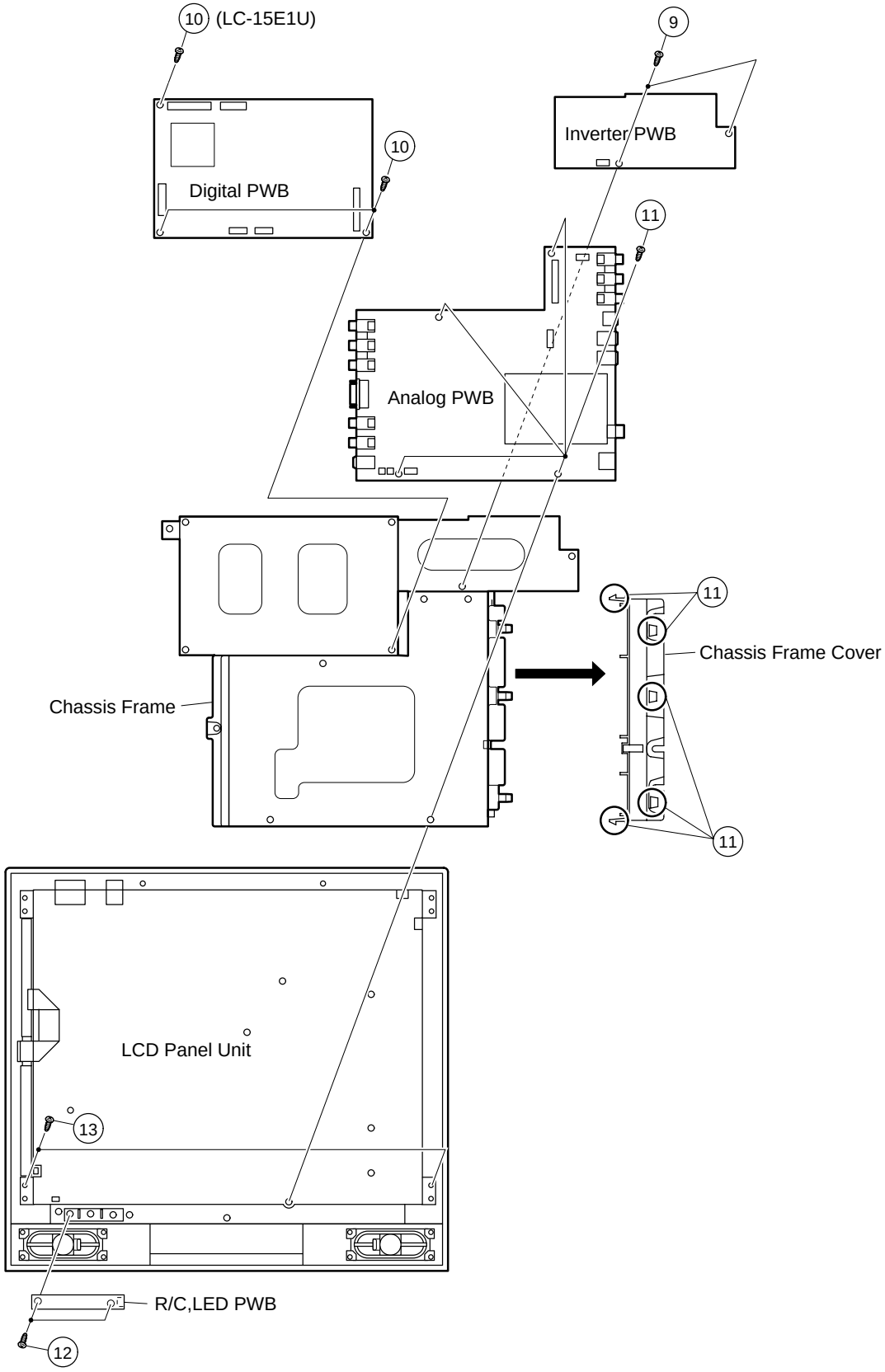
REMOVING OF MAJOR PARTS

1. Remove the table stand fixing screws (4 pcs.).
2. Remove the two terminal covers.
3. Remove the terminal section fixing screws (2 pcs.).
4. Remove the cabinet B fixing screws (6 pcs.).
5. Cabinet A is opend order of (5-1) to (5-6), and detach the Cabinet B.
6. Remove the top cover fixing screws (2 pcs.).
7. Remove the control PWB fixing screws (2 pcs.).
8. Detach the connector from each PWB.



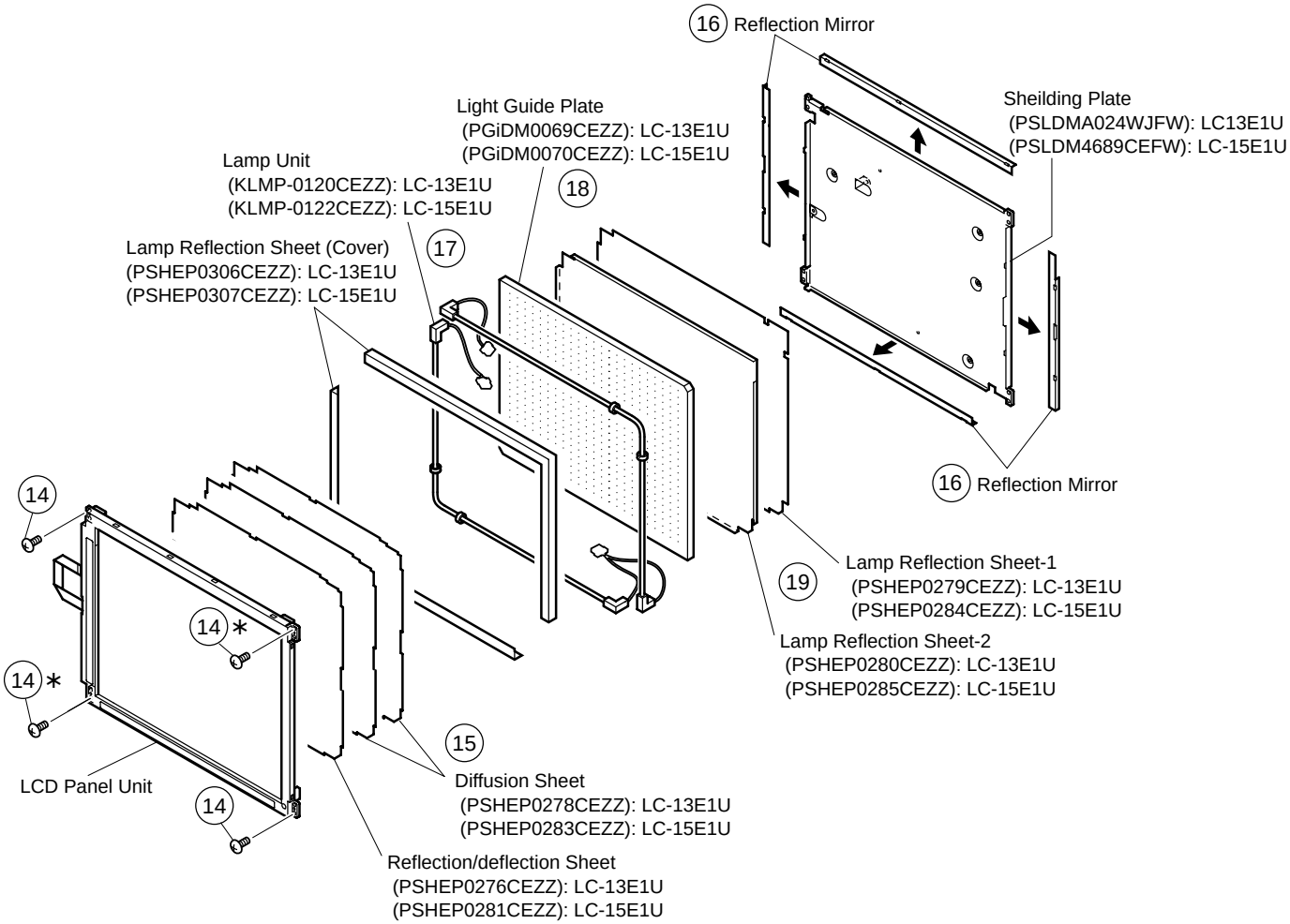


9. Remove the inverter PWB fixing screws (2 pcs.).
10. Remove the digital PWB fixing screws (2 pcs.) (LC-13E1U).
10. Remove the digital PWB fixing screws (3 pcs.) (LC-15E1U).
11. Remove the analog PWB fixing screws (4 pcs.) and detatch the chassis frame cover fixing hooks.
12. Remove the R/C, LED PWB fixing screws (2 pcs.).
13. Remove the LCD panel unit fixing screws (2 pcs.).



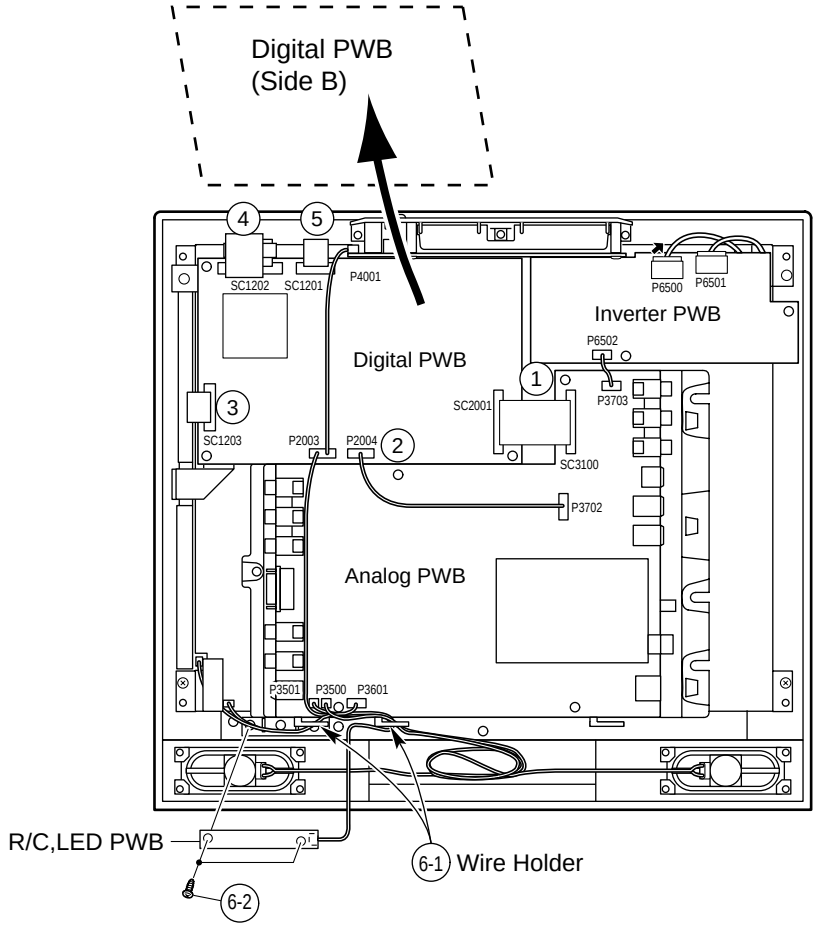
- **Precautions in handling the LCD panels**
  1. Work in a clean room (with humidities below 50%).
  2. Be sure to wear an anti-static armband.
  3. Handle the panels on an electroconductive mat.
  4. Be careful not to fall, shake and shock the panels.

14. Remove the LCD panel unit fixing screws (4 pcs.) (LC-15E1U).
14. Remove the LCD panel unit fixing screws (2 pcs.) (∗ LC-13E1U).
15. Detach the two diffusion sheets and reflection/deflection sheet.
16. Detach the four reflection mirrors.
17. Remove the lamp unit.
18. Detach the lamp guide plate.
19. Detach the two lamp reflection sheets.



- **Precautions at the time of the side B(back) service of Digital unit.**

1. Remove only SC2001 of the FFC for connection between Digital unit(SC2001) and Analag unit(SC3100), and connect the extended cable (QCNW-A324WJZZ) for service.
2. Remove only P2004 of the Connecting Cord for connection between Digital unit(P2004) and Analag unit(P3702), and connect the extended cable (QCNW-A323WJZZ) for service.
3. Remove the FFC for connection between Digital unit(SC1203) and LCD panel unit, and connect the extended cable (QCNW-A553WJZZ) for service.
4. Remove the FFC for connection between Digital unit(SC1202) and LCD panel unit, and connect the extended cable (QCNW-A556WJZZ) for service.
5. Remove the FFC for connection between Digital unit(SC1201) and LCD panel unit, and connect the extended cable (QCNW-A555WJZZ) for service.
6. Remove the R/C, LED unit.
   6-1. Remove a lead from a wire holder.
   6-2. Remove the R/C, LED unit fixing screws(2 pcs.).
7. Remove the Digital unit fixing screws(3 pcs.), a substrate is reversed.



ADJUSTING PROCEDURE OF EACH SECTION

The best adjustment is made before shipping. If any position deviation is found or after part replace is performed, adjust as follows.

1. Preparation for Adjustments

(1) Use the exclusive-use AC adapter or stable DC power supply.
AC adapter: UADP-A009WJPZ
DC power supply: 12 ± 0.5V

2. Special mode setting procedure

(1) After initialization of E^2PROM the mode is changed to the adjustment mode.
[Procedure]
Connect TP2001 and TP2002 to GND, and turn on the power.

[Description]
- The initialization of microprocessor is as follows.
- AV position, DAC data, G/A data, sound processor data, and video chroma data adjustment values are taken as defaults.

(2) Adjustment mode
[Procedure]
Short-circuit TP2001 to GND, and turn on the power.
Or short-circuit TP2002 to GND, and turn on the power.
Or holding down the [TV/VIDEO] key and [MENU] key, turn on the main power, and simultaneously press the (inspection process) [CH ▼] key and [VOL–] key to change the mode to the adjustment mode.

[Description]
The manual adjustment or adjustment through communication with the automatic machine is performed.

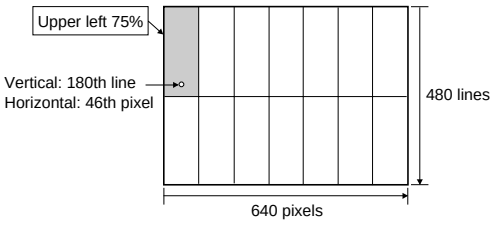
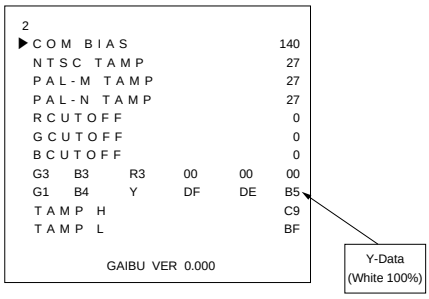
(3) Shipping setting mode
[Procedure]
Holding down the [TV/VIDEO] key and [MENU] key, turn on the main power, and simultaneously press the (inspection process) [CH ▲] key and [VOL+] key to change the mode to the shipping setting mode.
Note: Keep it in mind to turn off the power immediately. If any key-in is accidentally made, the setting will be canceled.

[Description]
User adjustment and other values are taken as defaults.
If TV is indicated as SETTING COMPLETE, setting has been completed.

3. Cancel of special mode

Turn off the Digital unit power.

Adjustments

Adjustment	Adjusting conditions	Adjusting method
1 B+ Adjustment (R3760)	1. Connect the DC voltmeter to pin (2) of P3702.	1. Adjust the "B+ Adj" value to 5.0 ± 0.02V with R3760. * Keep the voltage at pin (2) of P3702 below 5.3V during the adjustment.
2 Inch Size setup (If E^2PROM is replaced) (IC2004)	1. Go to the adjustment mode.	1. Select "INCH SIZE" and adjust to "13" (LC-13E1U), "15" (LC-15E1U) with [VOL +] or [VOL –] key. * The color of "INCH SIZE" must be yellow.
3 Common-bias adjustment	1. Receive a B/W channel. 2. Go to the adjustment mode. 3. Select the "COM BIAS" with [MENU] key.	1. Adjust "COM BIAS" to the darkest screen with [VOL +] and [VOL –] key. * The color of "COM BIAS" must be yellow.
4 TAMP adjustment	1. In the TV mode, the unit receives a picture of the half color bar signal whose left top corner is 75% white. The signal does not have to be the half color bar as long as the 180th line from the top and 46th pixel from the left is 75% white. (Data at this point is used for adjustment.) 2. Adjust "NTSC TAMP" on the page 2 of the adjustment process mode so that the "Y" value on the same page falls between BF - C9. 3. Set the values of PAL-M TAMP and PAL-N TAMP same.	 Page 2 of the adjustment process mode 

	Adjustment	Adjusting conditions	Adjusting method
5	White balance adjustment	1. Receive the monoscope pattern signal. 2. Adjust the "RCUTOFF" and "BCUTOFF" settings on the page 2 of the adjustment process mode to become the proper white balance. Do not change the "GCUTOFF" settings. (It also change the black level.)	
6	Checking and modifying the settings (If E^2PROM is replaced)	1. Go to the adjustment mode and check the following settings. ● LVL -17 (LC-13E1U) -17 (LC-15E1U) ● FRQ 300 250 ● STR 55 55 ● LMT -25 -17 ● HPF 80 80 ● LPF 180 180 ● EXT GEQ BAND1 +2.0 +1.5 ● EXT GEQ BAND2 -4.0 -3.5 ● EXT GEQ BAND3 -1.0 -1.0 ● EXT GEQ BAND4 -1.5 +2.0 ● EXT GEQ BAND5 +1.0 +1.0 ● TV GEQ BAND1 +2.0 +1.5 ● TV GEQ BAND2 -4.0 -3.5 ● TV GEQ BAND3 -1.0 -1.0 ● TV GEQ BAND4 -1.5 +2.0 ● TV GEQ BAND5 +1.0 +1.0	1.See if all the settings are as specified. If not, select an item in question with [VOL +] or [VOL –] key and adjust the setting as shown at left. * An item selected will be highlighted in yellow.

Shipping setting list

Channel		2ch
Air/Cable		Air
Skip Data_CATV		All Skip
Skip Data_AIR		All Skip
Volume		20
Picture		30
Tint		0
Color		0
Black Level		0
SHARPNESS		0
RED-BLUE		0
GREEN		0
TV Color System		N358
AV Color System		Auto
Language		English
Blue Screen		Off
EZ Setup Auto Start		On
Sleep Timer		None
MTS		Stereo
Brightness		Bright
Auto Power Off		Off
Picture Flip		Normal
AV2 IN/OUT		In
CC/TEXT		OFF
V Chip block	(MPAA)	None
	(TV Guideline)	None
	(Block Content)	All Unblock
	(Status)	Off
	(Input Secret No.)	Clear

Test patterns in adjustment process mode

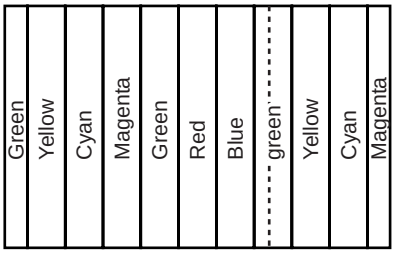
[1] IC801 (Video decoder) test patterns

1-1. Getting the test patterns displayed

Put the screen in AV1, AV2 or COMPONENT but keep out any signal. Call the adjustment process mode, select “TEST PATTERN” in the 3rd line of page 8, make the settings 1 thru 6, and the following test patterns show up.

1-2. Test patterns

- Setting 1

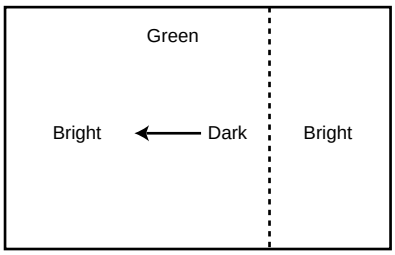


The color bars are displayed as shown at left.

- Setting 2

  Finer vertical stripes than Setting 1 are displayed.

- Setting 3



The green pattern is displayed as shown at left.

- Setting 4

  A rather dark green-only pattern is displayed.

- Setting 5

  A half-tone green-only pattern is displayed.

- Setting 6

  A rather bright green-only pattern is displayed.

[2] IC1201 (LCD controller) test pattern

2-1. Getting the test pattern displayed

Put the screen in AV1, AV2 or COMPONENT but keep out any signal. Call the adjustment process mode, select “G/A TEST PATTERN” in the 13th line of page 17, turn on the setting, and the following test pattern shows up.

2-2. Test pattern

The following test pattern appears.

<table>
<tr><td></td><td colspan="4">Dark Gray scale Bright</td><td>Dark</td></tr>
<tr><td></td><td colspan="4">Dark Red Bright</td><td>Dark</td></tr>
<tr><td></td><td colspan="4">Dark Green Bright</td><td>Dark</td></tr>
<tr><td></td><td colspan="4">Dark Blue Bright</td><td>Dark</td></tr>
<tr><td>White</td><td>Black
0-level
gradation</td><td>Gray
16-level
gradation</td><td>Gray
32-level
gradation</td><td>Gray
48-level
gradation</td><td>White
63-level
gradation</td></tr>
</table>

Note: When the IC801 and IC1201 test pattern display commands are both turned on at the same time, the IC1201 test pattern is given priority.

Pin functions of microprocessor IC (IC2001) RH-iXA300WJZZQ

No.	Pin name	Function	No.	Pin name	Function
1	V HOLD	Closed caption	51	REQ	Adjustment process
2	HLF	Closed caption	52	AV/SY/DY2	US CCD input select
3	MAIN SW	Main switch ON[H]/OFF[L]	53	FSMUTE	Front mute
4	TIMELED	Off timer LED light-up	54	RSMUTE	Rear mute
5	M/S OUT	Sub-microprocessor master/slave output	55	HPDET	Headphone detect at “L” level
6	CSYNC	Composite sync signal	56	SSTBY	Speaker standby (at “H” level)
7	IREMI	Remote control	57	VSH IN	Panel gate driver voltage check
8	GND	Grounding	58	LMUTE	Line out audio mute
9	GND	Grounding	59	V IN/OUT	Video input/output select
10	XCIN	32kHz oscillation input	60	SRESET	Multiplex reset at “L” level
11	XOUT	32kHz oscillation output	61	DENKA	Electric charge prevention
12	RESET	Reset at “L” level	62	VCC	Power
13	XOUT	Microprocessor oscillator connection	63	CARDPOW	Card (ON/OFF)
14	GND	Grounding	64	VSS	Grounding
15	XIN	Microprocessor oscillator connection	65	TV/AV1	Analog switch 1
16	VCC	Power	66	AV/AV2	Analog switch 2
17	OSCIN	OSD clock input	67	VIS/3DS	Analog switch 3
18	OSCOUT	OSD clock output	68	AV1/VISY	Analog switch 4
19	PSWIN	Main power input	69	AV/SY/DY1	US CCD input select 2
20	SUBREADY	Sub-microprocessor ready input	70	STD	Microprocessor power off output
21	BLK	OSD blanking output	71	PMUTE	P mute
22			72	POWOUT	DC/DC control output
23	DAC1CS	DAC1 chip select	73	AD POW	Adaptor ON/OFF input
24	DAC2CS	DAC2 chip select	74	IREM 2	Reception at slave
25	D SW	D terminal connection detect	75	MPRCS	G/A read enable
26	DTV	D terminal control line	76	MPRDA	G/A data input
27	MRDY	I^2C bus open/closed select input	77	MPCS	G/A chip select
28	SCL2	I^2C bus serial clock line 2	78	MPDA	G/A data output
29	SCL1	I^2C bus serial clock line 1	79	MPCLK	G/A clock
30	SDA1	I^2C bus serial data line 1	80	DDCRESET	Digital decoder reset
31	SDA2	I^2C bus serial data line 2	81	KEY4	Key input 4
32	R	R signal output	82	KEY5	Key input 5
33	G	G signal output	83	CARDRESET	Card reset (at “H” level)
34	B	B signal output	84	SAW SW	Tuner select (at “H” level)
35	SUBD OUT	Sub-microprocessor data output	85	MODE1	Tuner select (at “H” level)
36	SUBDIN	Sub-microprocessor data input	86	MODE2	Tuner select (at “H” level)
37	SUBCLK	Sub-microprocessor clock input	87	SSYSTEM	S system switching detect
38			88	SSW	S terminal connect input at “L” level
39	MRDY OUT	I^2C bus open/closed output	89	AFT	AFT voltage input
40	FCH	No-signal field ID signal output	90	AGC	AGC voltage input
41	IREM OUT	Not used	91	KEY1	Key input 1
42	L_ERR	Fluorescent lamp error detect input	92	KEY2	Key input 2
43	S IN/OUT	Audio input/output select	93	KEY3	Key input 3
44	N443	“H” for N443, “L” for others	94	POWIN	DC/DC start-up detect
45	PAL	“H” for PAL, “L” for others	95	VSYNC	OSD vertical sync signal
46	SECAM	“H” for SECAM, “L” for others	96	AVSS	Analog power input (GND)
47	PAL_M	“H” for PAL-M, “L” for others	97	HSYNC	OSD horizontal sync signal
48	N358	“H” for N358, “L” for others	98	TVSETB	Closed caption (GND)
49	PXOE	Card (Card mode at “L” level)	99	AVCC	OSD power input
50	VSH OUT	Panel gate driver voltage control	100	CVIN	Closed caption signal input

Adjustment process mode menus at a glance

Page	Item	Initial setting		Function	Adjust/modify
		LC-13E1U	LC-15E1U		
Basic settings					
1	MODEL	E1U	E1U	Model number	
	INCH SIZE	13	15	Inch unit select	Adjustment
	SYSTEM	AUTO	AUTO	Color system select	
	NTSC PWN FREQ	OCO	OCO	Dimmer frequency setting	
	PAL PWM FREQ	OBD	OBD	Dimmer frequency setting	
	NTSC PWM DUTY	0	0	Dimmer duty setting	
	PAL PWM DUTY	0	0	Dimmer duty setting	
	TV GAIN	OFF	OFF	Auto gain setting in TV mode	
	ERROR NO RESET	0	0	Lamp error count & reset	No. of lamp error detections
	PUBLIC MODE	OFF	OFF	HOTEL MODE	
	V-CHIP (US)	1	1	VCHIP line mute setting	
	CANADIAN VCHIP	OFF	OFF	Canadian VCHIP setting	
	E1U VER			Microprocessor Ver. No. display	
Video adjustments					
2	COM BIAS	120	120	Counter bias adjustment	Adjustment
	NTSC TAMP	27	27	TAMP adjustment	Adjustment
	PAL-M TAMP	27	27	TAMP adjustment	Adjustment (Same setting as for NTSC TAMP)
	PAL-N TAMP	27	27	TAMP adjustment	Adjustment (Same setting as for NTSC TAMP)
	RCUTOFF	-1	-1	White balance adjustment (Red)	Adjustment
	GCUTOFF	0	0	Green cutoff adjustment	
	BCUTOFF	-1	-1	White balance adjustment (Blue)	Adjustment
	G3	00	00	Data read value	
	B3	00	00	Data read value	
	R3	00	00	Data read value	
	G1	00	00	Data read value	
	B4	00	00	Data read value	
	Y	00	00	Data read value at TAMP adjustment	
	TAMP H	C9	C9	Y upper limit setting at TAMP adjustment	
	TAMP L	BF	BF	Y lower limit setting at TAMP adjustment	
	GAIBU VER			External version display	
3	TV NTSC CONT	50	50	Video contrast setting (TV NTSC)	
	TV PAL-M CONT	50	50	Video contrast setting (TV PAL-M)	
	TV PAL-N CONT	50	50	Video contrast setting (TV PAL-N)	
	AV N358 CONTRAST	50	50	Video contrast setting (Composite, S Video)	
	AV PAL CONTRAST	50	50	Video contrast setting (Composite, S Video)	
	AV SECAM CONTRAST	50	50	Video contrast setting (Composite, S Video)	
	AV PAL-M CONTRAST	50	50	Video contrast setting (Composite, S Video)	
	AV PAL-N CONTRAST	50	50	Video contrast setting (Composite, S Video)	
	AV PAL60 CONTRAST	50	50	Video contrast setting (Composite, S Video)	
	G3	00	00	Data read value	
	B3	00	00	Data read value	
	R3	00	00	Data read value	
	G1	00	00	Data read value	
	B4	00	00	Data read value	
	Y	00	00	Data read value	
Audio adjustments					
4	VOLUME	20	20	Volume	
	AVC	OFF	OFF	AVC setting	
	CARRIER MUTE	ON	ON	Audio output setting out of sync with TV	
	IGR THR	12D	12D	IGR THRESH LEVEL	
	MSP DATA	0	0	Audio IC MSP data write & read	
	MSP DATA	WAIT	WAIT	Write & read execution	
	PRESCALE FM/AM-M	17	17	Pre-scale setting (TV)	
	PRESCALE SCART	15	15	Pre-scale setting (external input)	
	FSP TEST	OFF	OFF	Audio test (FS mute ON/OFF)	
5	MDB	ON	ON	MDB	
	LVL	-10	-10	WF level adjustment	Change to “-17”
	FRQ	120	120	WF LPF cutoff frequency setting	Change to “300” (LC-13E1U),“250”(LC-15E1U)
	STR	40	40	MDB amount of effects setting	Change to “55”
	LMT	-27	-27	MDB limit value setting	Change to “-25” (LC-13E1U),“-17”(LC-15E1U)
	HMC	00	00	MDB harmonics effect setting	

Page	Item	Initial setting		Function	Adjust/modify
		LC-13E1U	LC-15E1U		
5	HPF	100	100	MDB Zone restriction HPF cutoff frequency	Change to “80”
	LPF	110	110	MDB Zone restriction LPF cutoff frequency	Change to “180”
6	EXT GEQ BAND1	+1.5	+2.0	Equalizer setting 1 (external input)	Change to “+2.0” (LC-13E1U),“+1.5”(LC-15E1U)
	EXT GEQ BAND2	+0.5	+0.5	Equalizer setting 2 (external input)	Change to “-4.0” (LC-13E1U),“-3.5”(LC-15E1U)
	EXT GEQ BAND3	–2.0	-2.0	Equalizer setting 3 (external input)	Change to “-1.0”
	EXT GEQ BAND4	–2.0	–1.5	Equalizer setting 4 (external input)	Change to “-1.5” (LC-13E1U),“+2.0”(LC-15E1U)
	EXT GEQ BAND5	00	–1.5	Equalizer setting 5 (external input)	Change to “+1.0”
	TV GEQ BAND1	+1.5	+2.0	Equalizer setting 1 (TV)	Change to “+2.0” (LC-13E1U),“+1.5”(LC-15E1U)
	TV GEQ BAND2	+0.5	+0.5	Equalizer setting 2 (TV)	Change to “-4.0” (LC-13E1U),“-3.5”(LC-15E1U)
	TV GEQ BAND3	–2.0	–2.0	Equalizer setting 3 (TV)	Change to “-1.0”
	TV GEQ BAND4	–2.0	–1.5	Equalizer setting 4 (TV)	Change to “-1.5” (LC-13E1U),“+2.0”(LC-15E1U)
	TV GEQ BAND5	0.0	–1.5	Equalizer setting 5 (TV)	Change to “+1.0”

Video adjustments (VPC settings)

7	I^2C DATA	0	0	I^2C bus control IC data write & read	
	I^2C DATA	WAIT	WAIT	Write & read execution	
	CBW	1	1	Chroma band pass setting	
	NOSEL	3	3	Comb filter setting	
	DDR	0	0	Comb filter setting	
	HDG	2	2	Comb filter setting	
	VDG	1	1	Comb filter setting	
	VPK	3	3	Comb filter setting	
	KILVL 08	08	08	Color killer level setting	
	KILHY 05	05	05	Color killer hysteresis setting	
	VSYNC DELAY	29	29	V sync phase setting	
	DVCO	–720	–720	DVCO setting	
	AUTO LCK	1	1	Line lock mode setting	

Video adjustments (component)

8	VPC DATA	0	0	Video IC VPC data write & read	
	VPC DATA	WAIT	WAIT	Write & read execution	
	TEST PATTERN	0	0	VPC test pattern select	Video IC test pattern
	AUTO LDLY	–2	–2	Y/C phase setting	
	DVD NTSC CR	25	25	Color density setting (component)	
	DVD NTSC CB	28	28	Color density setting (component)	
	DVD NTSC TINT	+7	+7	Color tone setting (component)	
	DVD NTSC BRIGHTNESS	+64	+64	Brightness setting (component)	
	DVD NTSC CONTRAST	28	28	Video setting (component)	
	DVD NTSC P FILTER	0	0	Peaking filter setting (component)	
	DVD NTSC H-PEAKING	3	3	Picture quality setting (component)	
	DVD NTSC BRIGHT2	+9	+8	Brightness setting 2 (component)	
	DVD NTSC CONTRAST2	48	48	Video setting 2 (component)	
9	DVD PAL CR	31	31	Color density setting (component)	
	DVD PAL CB	31	31	Color density setting (component)	
	DVD PAL TINT	0	0	Color tone setting (component)	
	DVD PAL BRIGHTNESS	+64	+64	Brightness setting (component)	
	DVD PAL CONTRAST	27	27	Video setting (component)	
	DVD PAL P FILTER	0	0	Peaking filter setting (component)	
	DVD PAL H-PEAKING	3	3	Picture quality setting (component)	
	DVD PAL BRIGHT2	+9	+9	Brightness setting 2 (component)	
	DVD PAL CONTRAST2	48	48	Video setting 2 (component)	

Video adjustments (TV, composite & S video)

10	N358 TV COLOR	2600	2600	Color density setting (TV)	
	N358 AV COLOR	2600	2600	Color density setting (composite, S video)	
	N358 TV TINT	+70	+70	Color tone setting (TV)	
	N358 AV TINT	+70	+70	Color tone setting (composite, S video)	
	N358 BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	N358 PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	N358 TV H-PEAKING	3	3	Picture quality setting (TV)	
	N358 AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	N358 AVO START	152	152	Horizontal position setting	
	N358 SFIF	0	0	Horizontal position setting	
	N358 SCINC1	1623	1623	Roundness setting	

Page	Item	Initial setting		Function	Adjust/modify
		LC-13E1U	LC-15E1U		
10	N358 TV LDLY	–2	–2	Y/C phase setting (TV)	
	N358 AV LDLY	–2	–2	Y/C phase setting (composite, S video)	
11	N443 AV COLOR	2600	2600	Color density setting (composite, S video)	
	N443 AV TINT	+70	+70	Color tone setting (composite, S video)	
	N443 BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	N443 PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	N443 AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	N443 AVO START	152	152	Horizontal position setting	
	N443 SFIF	0	0	Horizontal position setting	
	N443 SCINC1	1623	1623	Roundness setting	
	N443 AV LDLY	–2	–2	Y/C phase setting (composite, S video)	

Video adjustments (TV, composite & S video)

12	PAL AV COLOR	2600	2600	Color density setting (composite, S video)	
	PAL AV TINT	+70	+70	Color tone setting (composite, S video)	
	PAL BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	PAL PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	PAL AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	PAL AVO START	152	152	Horizontal position setting	
	PAL SFIF	0	0	Horizontal position setting	
	PAL SCINC1	1623	1623	Roundness setting	
	PAL AV LDLY	-2	-2	Y/C phase setting (composite, S video)	
13	SECAM AV COLOR	2600	2600	Color density setting (composite, S video)	
	SECAM AV TINT	+70	+70	Color tone setting (composite, S video)	
	SECAM BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	SECAM PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	SECAM AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	SECAM AVO START	152	152	Horizontal position setting	
	SECAM SFIF	0	0	Horizontal position setting	
	SECAM SCINC1	1623	1623	Roundness setting	
	SECAM AV LDLY	-2	-2	Y/C phase setting (composite, S video)	
14	PAL-M TV COLOR	2600	2600	Color density setting (TV)	
	PAL-M AV COLOR	2600	2600	Color density setting (composite, S video)	
	PAL-M TV TINT	+70	+70	Color tone setting (TV)	
	PAL-M AV TINT	+70	+70	Color tone setting (composite, S video)	
	PAL-M BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	PAL-M PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	PAL-M TV H-PEAKING	3	3	Picture quality setting (TV)	
	PAL-M AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	PAL-M AVO START	152	152	Horizontal position setting	
	PAL-M SFIF	0	0	Horizontal position setting	
	PAL-M SCINC1	1623	1623	Roundness setting	
	PAL-M TV LDLY	–2	–2	Y/C phase setting (TV)	
	PAL-M AV LDLY	–2	–2	Y/C phase setting (composite, S video)	
15	PAL-N TV COLOR	2600	2600	Color density setting (TV)	
	PAL-N AV COLOR	2600	2600	Color density setting (composite, S video)	
	PAL-N TV TINT	+70	+70	Color tone setting (TV)	
	PAL-N AV TINT	+70	+70	Color tone setting (composite, S video)	
	PAL-N BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	PAL-N PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	PAL-N TV H-PEAKING	3	3	Picture quality setting (TV)	
	PAL-N AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	PAL-N AVO START	152	152	Horizontal position setting	
	PAL-N SFIF	0	0	Horizontal position setting	
	PAL-N SCINC1	1623	1623	Roundness setting	
	PAL-N TV LDLY	–2	–2	Y/C phase setting (TV)	
	PAL-N AV LDLY	–2	–2	Y/C phase setting (composite, S video)	
16	PAL60 AV COLOR	2600	2600	Color density setting (composite, S video)	
	PAL60 AV TINT	+70	+70	Color tone setting (composite, S video)	
	PAL60 BRIGHTNESS	+9	+8	Brightness setting (TV, composite, S video)	
	PAL60 PEAKING FILTER	0	0	Peaking filter setting (TV, composite, S video)	
	PAL60 AV H-PEAKING	3	3	Picture quality setting (composite, S video)	
	PAL60 AVO START	152	152	Horizontal position setting	
	PAL60 SFIF	0	0	Horizontal position setting	
	PAL60 SCINC1	1623	1623	Roundness setting	
	PAL60 AV LDLY	–2	–2	Y/C phase setting (composite, S video)	

Page	Item	Initial setting		Function	Adjust/modify
		LC-13E1U	LC-15E1U		

Search AFT reference settings & LCD controller settings

17	AFT UP	2.7	2.7	AFT reference voltage	
	AFT DOWN	1.8	1.8	AFT reference voltage	
	NTSC 01	8C	8C	Initial settings	
	NTSC 02	C0	C0	Various settings	
	NTSC 03	81	81	RCUTOFF	
	NTSC 04	00	00	GCUTOFF	
	NTSC 05	81	81	BCUTOFF	
	NTSC 06	0B	0B	Horizontal display position	
	NTSC 07	10	10	Vertical display position	
	NTSC 08	00	00	UV data phase delay	
	NTSC 09	4C	4C	Panel clock adjustment	
	NTSC 0A	4B	4B	Display screen top/bottom mask position	
	NTSC 10	80	80	Test pattern display	
	NTSC 11	00	00	Test pattern data	
	NTSC 12	00	00	Horizontal display mask (left) position	
	NTSC 13	00	00	Horizontal display mask (right) position	
	NTSC E0	00	00	FIFO TEST	
	NTSC E1	03	03	Sync polarity reversal	
	NTSC F0	07	07	OFL terminal operation setting	
	NTSC F1	00	00	Inverter frequency setting	
	NTSC F2	00	00	Inverter duty setting	
	NTSC F3	C0	C0	Dimmer frequency setting, lower level	
	NTSC F4	00	00	Dimmer frequency setting, upper level	
	NTSC F5	00	00	Dimmer PWM setting, lower level	
	NTSC F6	00	00	Dimmer PWM setting, upper level	
	NTSC F7	00	00	OFL 1/2 phase	
	NTSC 14	02	02	System clock setting	
	G/A TEST PATERN	OFF	OFF	Gradation test pattern display	LCD controller IC test pattern
18	PAL 01	8E	8E	Initial settings	
	PAL 02	C8	C8	Various settings	
	PAL 03	81	81	RCUTOFF	
	PAL 04	00	00	GCUTOFF	
	PAL 05	81	81	BCUTOFF	
	PAL 06	13	13	Horizontal display position	
	PAL 07	18	18	Vertical display position	
	PAL 08	O2	O2	UV data phase delay	
	PAL 09	4C	4C	Panel clock adjustment	
	PAL 0A	4A	4A	Display screen top/bottom mask position	
	PAL 10	80	80	Test pattern display	
	PAL 11	00	00	Test pattern data	
	PAL 12	00	00	Horizontal display mask (left) position	
	PAL 13	00	00	Horizontal display mask (right) position	
	PAL E0	00	00	FIFO TEST	
	PAL E1	03	03	Sync polarity reversal	
	PAL F0	07	07	OFL terminal operation setting	
	PAL F1	00	00	Inverter frequency setting	
	PAL F2	00	00	Inverter duty setting	
	PAL F3	BD	BD	Dimmer frequency setting, lower level	
	PAL F4	00	00	Dimmer frequency setting, upper level	
	PAL F5	00	00	Dimmer PWM setting, lower level	
	PAL F6	00	00	Dimmer PWM setting, upper level	
	PAL F7	00	00	OFL 1/2 phase	
	PAL 14	02	02	System clock setting	
	CLOSED CAPTION	15	15	Closed caption thresh level	
	CCD ISO	16	16	Closed caption phase setting	
	AIR SERCH	1.6	1.6	Last synchronous judging frequency at the AIR CH SEARCH	

Page	Item	Initial setting		Function	Adjust/modify
		LC-13E1U	LC-15E1U		

Gradation & COM settings

19	V255	255	255	Gradation power reference voltage	
	V255 BIAS	127	127	Gradation power reference voltage	
	V235	226	226	Gradation power reference voltage	
	V235 BIAS	127	127	Gradation power reference voltage	
	V176	138	137	Gradation power reference voltage	
	V176 BIAS	150	150	Gradation power reference voltage	
	V112	103	103	Gradation power reference voltage	
	V112 BIAS	170	170	Gradation power reference voltage	
	V64	72	73	Gradation power reference voltage	
	V64 BIAS	40	40	Gradation power reference voltage	
	V32	62	62	Gradation power reference voltage	
	V32 BIAS	45	45	Gradation power reference voltage	
20	V21	49	50	Gradation power reference voltage	
	V21 BIAS	50	50	Gradation power reference voltage	
	V17	45	45	Gradation power reference voltage	
	V17 BIAS	55	55	Gradation power reference voltage	
	V7	29	29	Gradation power reference voltage	
	V7 BIAS	65	65	Gradation power reference voltage	
	V0	0	0	Gradation power reference voltage	
	V0 BIAS	80	130	Gradation power reference voltage	
	VGL ADJ	27	27	VGL bias setting	
	VGL COM	215	215	VGL COM setting	
	COM	181	181	COM amplitude setting	
	G/A READDATA	00 00	00 00	Controller read data setting	
	G/A READDATA	WAIT	WAIT	Read execution	

Three-dimensional settings & sync ID settings

21	3D Y/C	0	0	3D ON/OFF setting	
	3D Y/C DATA	0	0	3D YC data write & read	
	3D Y/C DATA	WAIT	WAIT	Write & read execution	
	LSYNC	625	625	Sync ID threshold level (TV)	
	HSYNC	655	655	Sync ID threshold level (TV)	
	AVSYNC	5000	5000	Sync ID threshold level (external input)	
	VPC FP20H	DATA0000	DATA0000	VPC data read value	
	VPC FP21H	DATA0000	DATA0000	VPC data read value	
	VPC FP13H	DATA0000	DATA0000	VPC data read value	
	MSP DEMO200H	DATA0000	DATA0000	MSP data read value	
	L ERROR WAIT	15s	15s	Lamp error detect wait time	
	L ERROR H TIME	1.0s	1.0s	Lamp error detect time	
	VPC I2C 20H	24	24	Sync control setting (Only for Ver. 1.8)	

Power off mode settings & Measure against baund setting

22	DENKA PORT	OFF	OFF	Power off mode setting	
	DENKA TESTP	00	00	Power off mode setting	
	DENKA TESTP2	30ms	30ms	Power off mode setting	
	FP12TIM	700	700	Measure against vertical baund	
	REMOCON CODE	000	000	Received remote control code display	

PUBLIC MODE

1. Outline

   The Public mode is designed to limit the functions of LCD TV sets that are set up at hotels, public places (hospitals, for example), shop fronts and similar locations.

   Note:

   In the Public mode, some user settings may fail to be changed later. The Closed Caption, V-Chip, MTS and some other functions, as well as the volume control must be preset before getting the TV set into the Public mode.

2. Setting procedure

   Take the following steps to go to the Public mode.

   Call the adjustment process mode, and turn on [PUBLIC MODE]. (Getting started in the Public mode)

   On the Public mode setup screen, make necessary settings. (Making settings in the Public mode)

3. Getting started in the Public mode

   Hold down the [TV/VIDEO] and [MENU] buttons at once, and press the MAIN POWER switch to power on the TV set.

   Then press the [CH▼] and [VOL-] buttons at once to go to the adjustment process mode.

   Now press the [MENU] button and select [PUBLIC MODE]. Press the [VOL+] button to turn on the Public mode.

   And power off the TV set.

4. Making settings in the Public mode

   Before taking the steps below, make sure the TV set is in the Public mode (PUBLIC MODE on).

   Hold down the [VOL-] and [CH▼] buttons at once, and press the MAIN POWER switch to power on the TV set again. The PUBLIC MODE screen shows up.

PUBLIC MODE	
MAXIMUM VOLUME	[60]
VOLUME FIXED	[VARIABLE]
REMOTE CONTROL	[RESPOND]
USER CONTROL	[RESPOND]
ON SCREEN DISPLAY	[YES]
AV1 INPUT	[NORMAL]
RESET	
ENTER	

Using the [CH▼] or [CH▲] button, select an item.

Using the [VOL-] or [VOL+] button, change the setting.

Note:

Finally be sure to select [ENTER] and press the [VOL-] or [VOL+] button to save the new setting.

Item	Default	Setting	Function
MAXIMUM VOLUME	60	1~60	Sets the highest sound volume level. (The volume level is expressed in digital form only.)
VOLUME FIXED	VARIABLE	VARIABLE	Makes the sound volume adjustable.
		FIXED	Keeps the sound volume fixed. (The sound volume is fixed at the then level. The Volume and Mute characters are not displayed onscreen.)
REMOTE CONTROL	RESPOND	RESPOND	Activates the remote controller.
		NO RESPOND	Deactivates the remote controller. (The buttons on the TV set are operative.)
USER CONTROL	RESPOND	RESPOND	Activates the buttons on the TV set.
		NO RESPOND	Deactivates the buttons on the TV set. (The remote controller alone is operative.)
NO SCREEN DISPLAY	YES	YES	Activates the onscreen display.
		NO	Deactivates the onscreen display.
AV1 INPUT	NORMAL	NORMAL	Usual operation.
		START	Enters the AV1 mode when powered on. (Switchable between TV and VIDEO)
		AV1 FIXED	Keeps the TV set fixed at the AV1 mode. (Unswitchable between TV and VIDEO)
RESET			Returns all the settings to their defaults.
ENTER			Saves new settings.

5. Quitting the Public mode

Hold down the [TV/VIDEO] and [MENU] buttons at once, and press the MAIN POWER switch to power on the TV set.

Then press the [CH▼] and [VOL-] buttons at once to go to the adjustment process mode.

Now press the [MENU] button and select [PUBLIC MODE]. Press the [VOL+] button to turn off the Public mode.

Finally power off the TV set.

TROUBLE SHOOTING TABLE

No Power (Power LED indicator still in red)

Go to the adjustment process mode.

1

▷ MODEL	E1U
INCH SIZE	∗
SYSTEM	AUTO
NTSC PWM FREQ	OCO
PAL PWM FREQ	OBD
NTSC PWM DUTY	0
PAL PWM DUTY	0
TV GAIN	OFF
ERROR NO RESET	5
PUBLIC MODE	OFF
V-CHIP	1
CANADIAN VCHIP	OFF

E1U VER 1.xx

Move the cursor to ERROR NO RESET and click on it (to reset to zero).

Turn off the power.

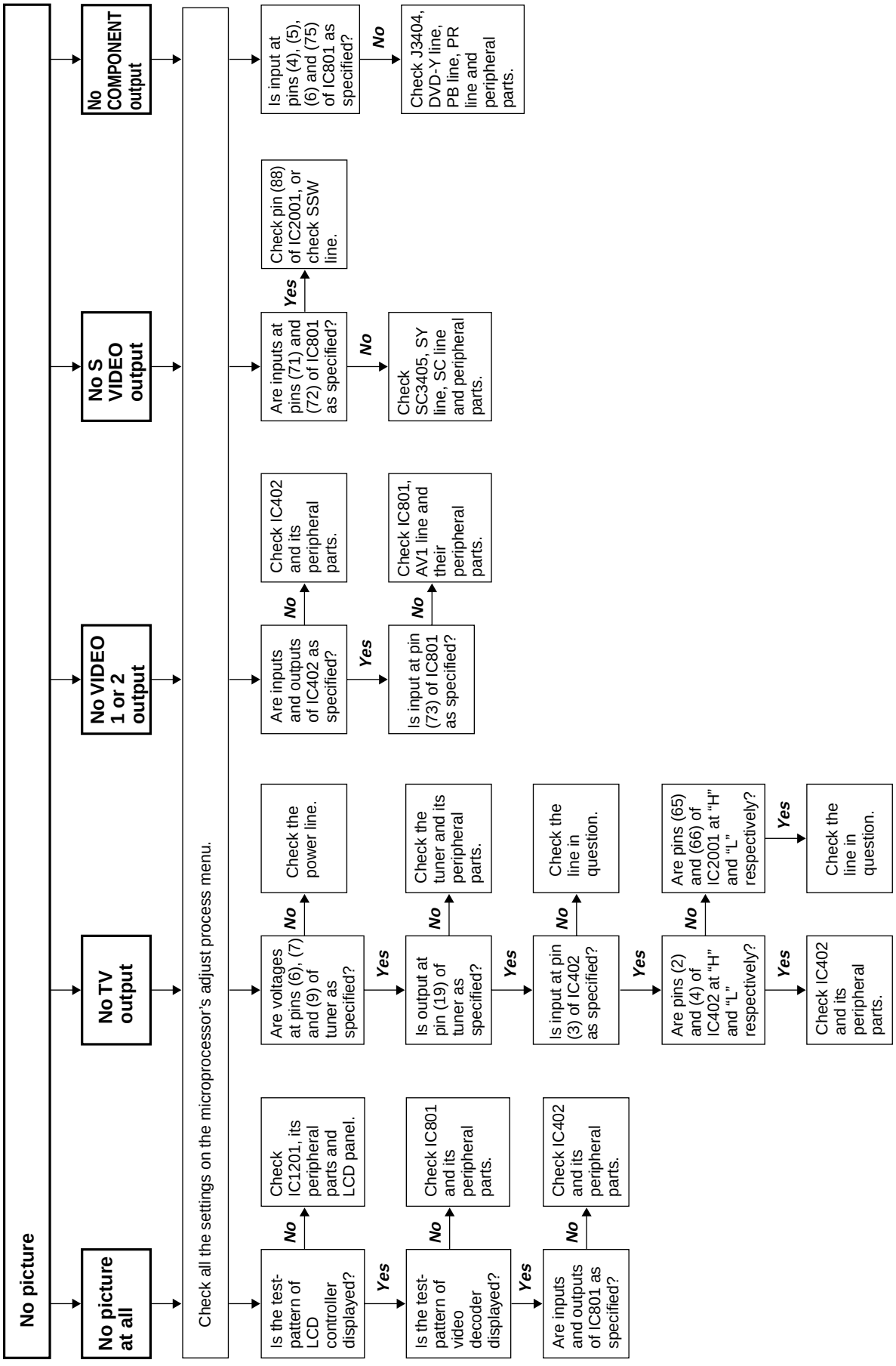
Is the power turned on again?

No

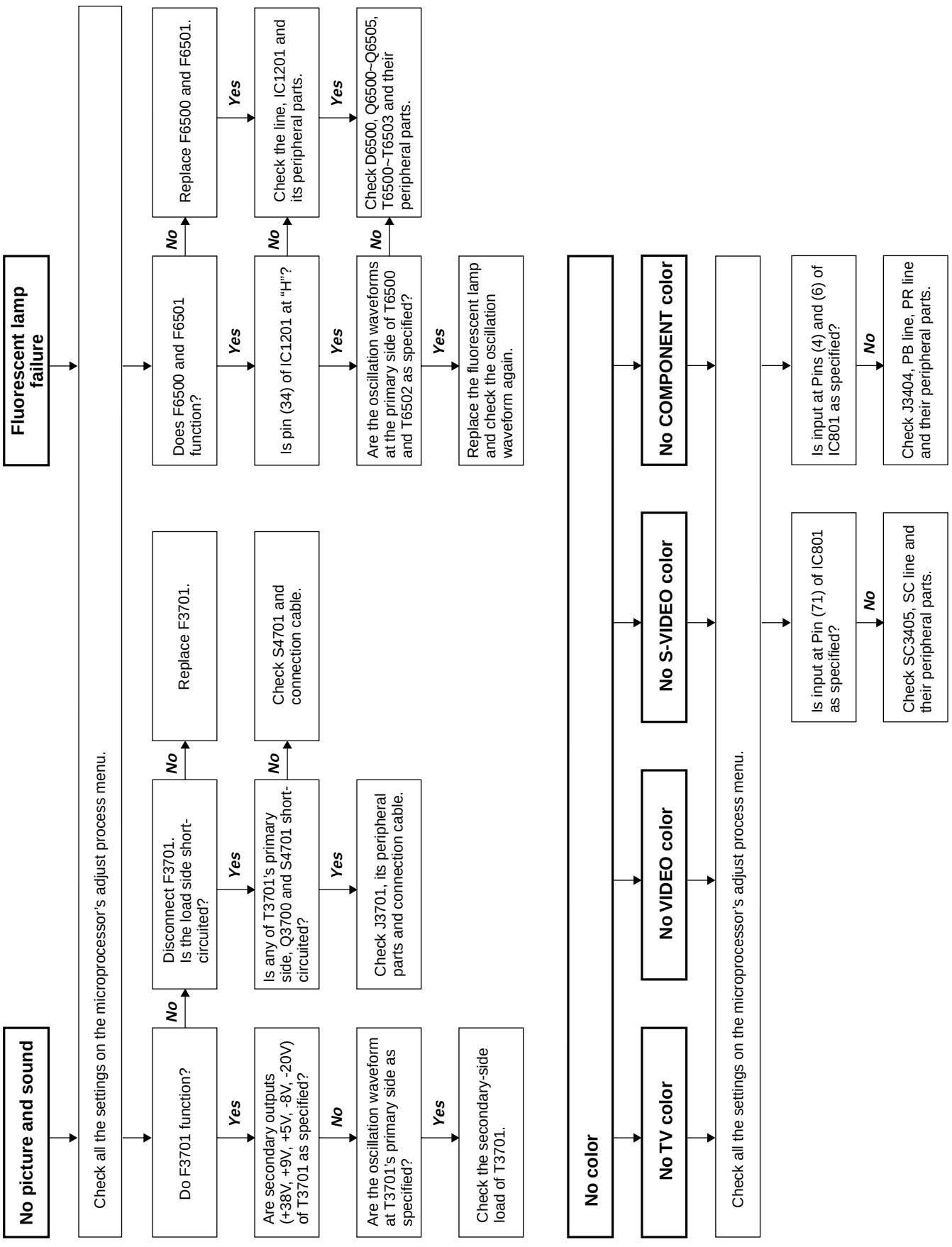
Check the following items:
① Back light lamp
② Inverter Circuit
(Inverter PWB and Digital PWB)
F6500, F6501, D6500, Q6500, Q6501, Q6502, Q6503, Q6504, Q6505 and their peripheral parts as well as pin (34) of IC1201.
③ Lamp error detection circuit
(Analog PWB and Digital PWB)
D3600, D3601, D3604, D3605, Q3600, Q3601 and their peripheral parts as well as pin (42) of IC2001.

Note:
This model is equipped with the lamp error detection function that detects the current flowing into the fluorescent lamp and protects the backlight lamp drive circuit.
If a lamp error is detected, the microprocessor interrupts the unit and the ERROR NO RESET setting will go up.
When the ERROR NO RESET setting has reached "5", the microprocessor turns and keeps off the unit's power. To resume the power, take the above procedure to clear the ERROR NO RESET setting.
∗:"13"(LC-13E1U)
"15"(LC-15E1U)

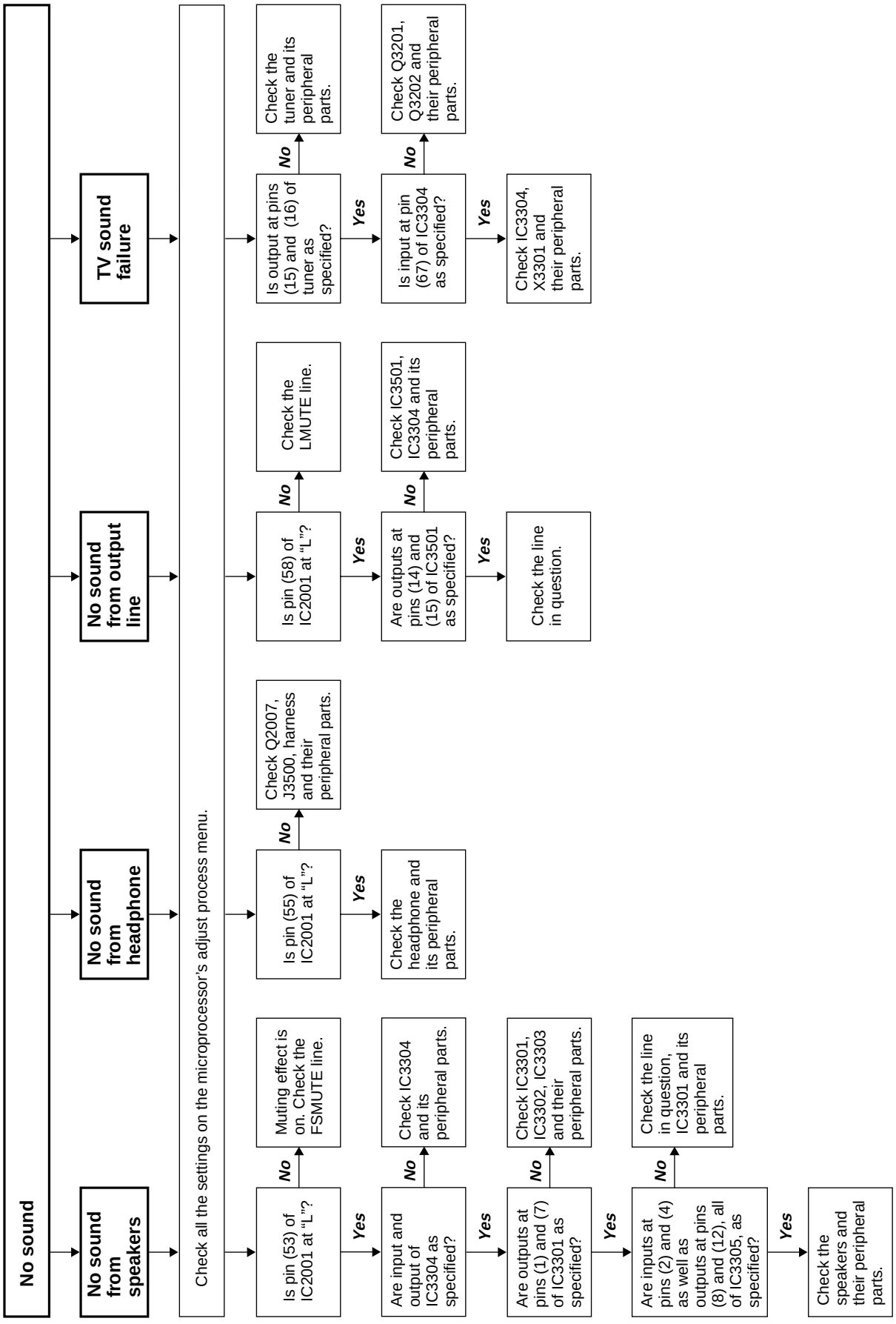
TROUBLE SHOOTING TABLE (Continued)


No picture
No picture at all
Check all the settings on the microprocessor's adjust process menu.
Is the test-pattern of LCD controller displayed?
No
Check IC1201, its peripheral parts and LCD panel.
Yes
Is the test-pattern of video decoder displayed?
No
Check IC801 and its peripheral parts.
Yes
Are inputs and outputs of IC801 as specified?
No
Check IC402 and its peripheral parts.
Yes
No TV output
Are voltages at pins (6), (7) and (9) of tuner as specified?
No
Check the power line.
Yes
Is output at pin (19) of tuner as specified?
No
Check the tuner and its peripheral parts.
Yes
Is input at pin (3) of IC402 as specified?
No
Check the line in question.
Yes
Are pins (2) and (4) of IC402 at "H" and "L" respectively?
No
Are pins (65) and (66) of IC2001 at "H" and "L" respectively?
Yes
Check the line in question.
Yes
Check IC402 and its peripheral parts.
No VIDEO 1 or 2 output
Are inputs and outputs of IC402 as specified?
No
Check IC402 and its peripheral parts.
Yes
Is input at pin (73) of IC801 as specified?
No
Check IC801, AV1 line and their peripheral parts.
No S VIDEO output
Are inputs at pins (71) and (72) of IC801 as specified?
Yes
Check pin (88) of IC2001, or check SSW line.
No
Check SC3405, SY line, SC line and peripheral parts.
No COMPONENT output
Is input at pins (4), (5), (6) and (75) of IC801 as specified?
No
Check J3404, DVD-Y line, PB line, PR line and peripheral parts.

TROUBLE SHOOTING TABLE (Continued)


No picture and sound
Check all the settings on the microprocessor's adjust process menu.
Do F3701 function?
No
Disconnect F3701.
Is the load side short-circuited?
No
Replace F3701.
Yes
Are secondary outputs (+38V, +9V, +5V, -8V, -20V) of T3701 as specified?
No
Is any of T3701's primary side, Q3700 and S4701 short-circuited?
No
Check S4701 and connection cable.
Yes
Are the oscillation waveform at T3701's primary side as specified?
No
Check J3701, its peripheral parts and connection cable.
Yes
Check the secondary-side load of T3701.
Fluorescent lamp failure
Does F6500 and F6501 function?
No
Replace F6500 and F6501.
Yes
Is pin (34) of IC1201 at "H"?
No
Check the line, IC1201 and its peripheral parts.
Yes
Are the oscillation waveforms at the primary side of T6500 and T6502 as specified?
No
Check D6500, Q6500~Q6505, T6500~T6503 and their peripheral parts.
Yes
Replace the fluorescent lamp and check the oscillation waveform again.
No color
No TV color
No VIDEO color
No S-VIDEO color
No COMPONENT color
Check all the settings on the microprocessor's adjust process menu.
Is input at Pin (71) of IC801 as specified?
No
Check SC3405, SC line and their peripheral parts.
Is input at Pins (4) and (6) of IC801 as specified?
No
Check J3404, PB line, PR line and their peripheral parts.

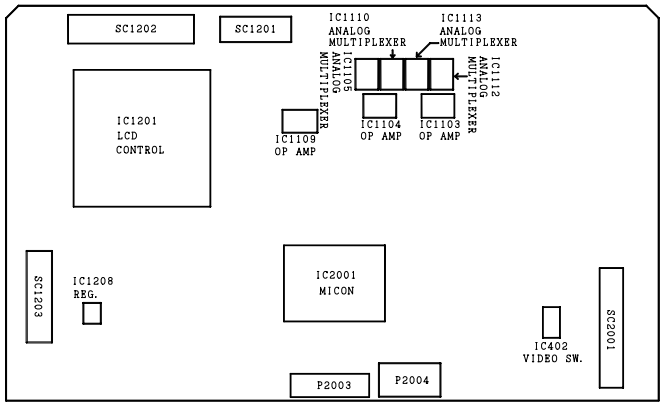
TROUBLE SHOOTING TABLE (Continued)


No sound
No sound from speakers
No sound from headphone
No sound from output line
TV sound failure
Check all the settings on the microprocessor's adjust process menu.
Is pin (53) of IC2001 at "L"?
No
Muting effect is on. Check the FSMUTE line.
Yes
Are input and output of IC3304 as specified?
No
Check IC3304 and its peripheral parts.
Yes
Are outputs at pins (1) and (7) of IC3301 as specified?
No
Check IC3301, IC3302, IC3303 and their peripheral parts.
Yes
Are inputs at pins (2) and (4) as well as outputs at pins (8) and (12), all of IC3305, as specified?
No
Check the line in question, IC3301 and its peripheral parts.
Yes
Check the speakers and their peripheral parts.
Is pin (55) of IC2001 at "L"?
No
Check Q2007, J3500, harness and their peripheral parts.
Yes
Check the headphone and its peripheral parts.
Is pin (58) of IC2001 at "L"?
No
Check the LMUTE line.
Yes
Are outputs at pins (14) and (15) of IC3501 as specified?
No
Check IC3501, IC3304 and its peripheral parts.
Yes
Check the line in question.
Is output at pins (15) and (16) of tuner as specified?
No
Check the tuner and its peripheral parts.
Yes
Is input at pin (67) of IC3304 as specified?
No
Check Q3201, Q3202 and their peripheral parts.
Yes
Check IC3304, X3301 and their peripheral parts.

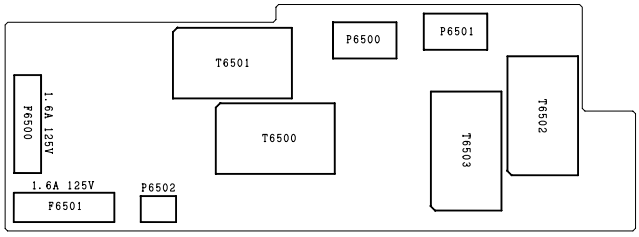
CHASSIS LAYOUT

CONTROL PWB

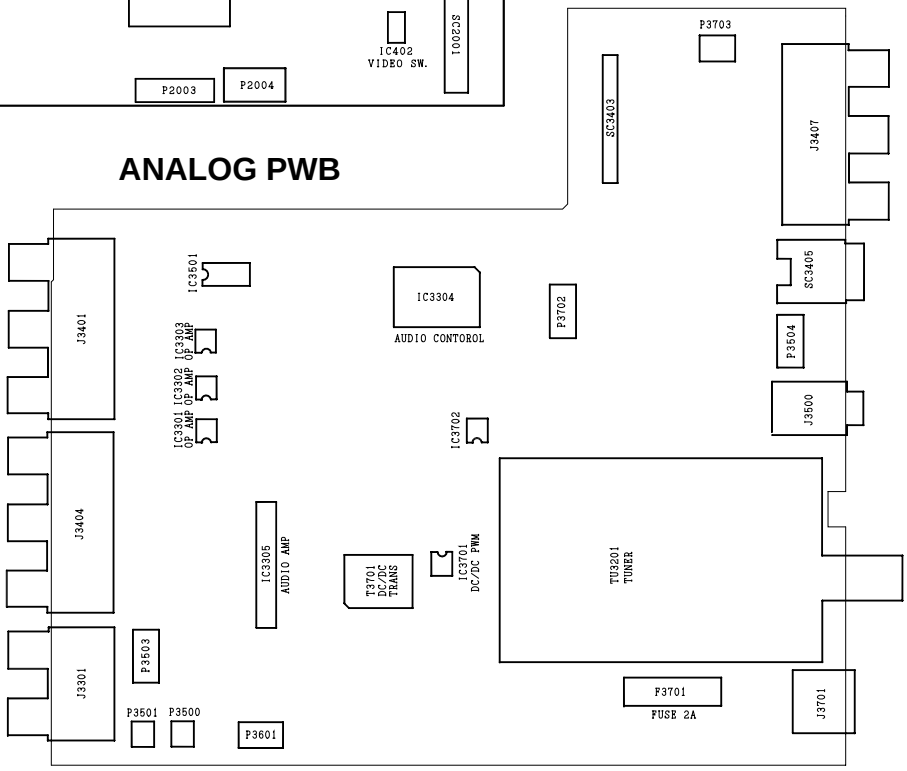
DIGITAL PWB



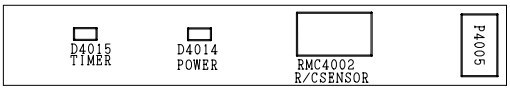
INVERTER PWB



ANALOG PWB

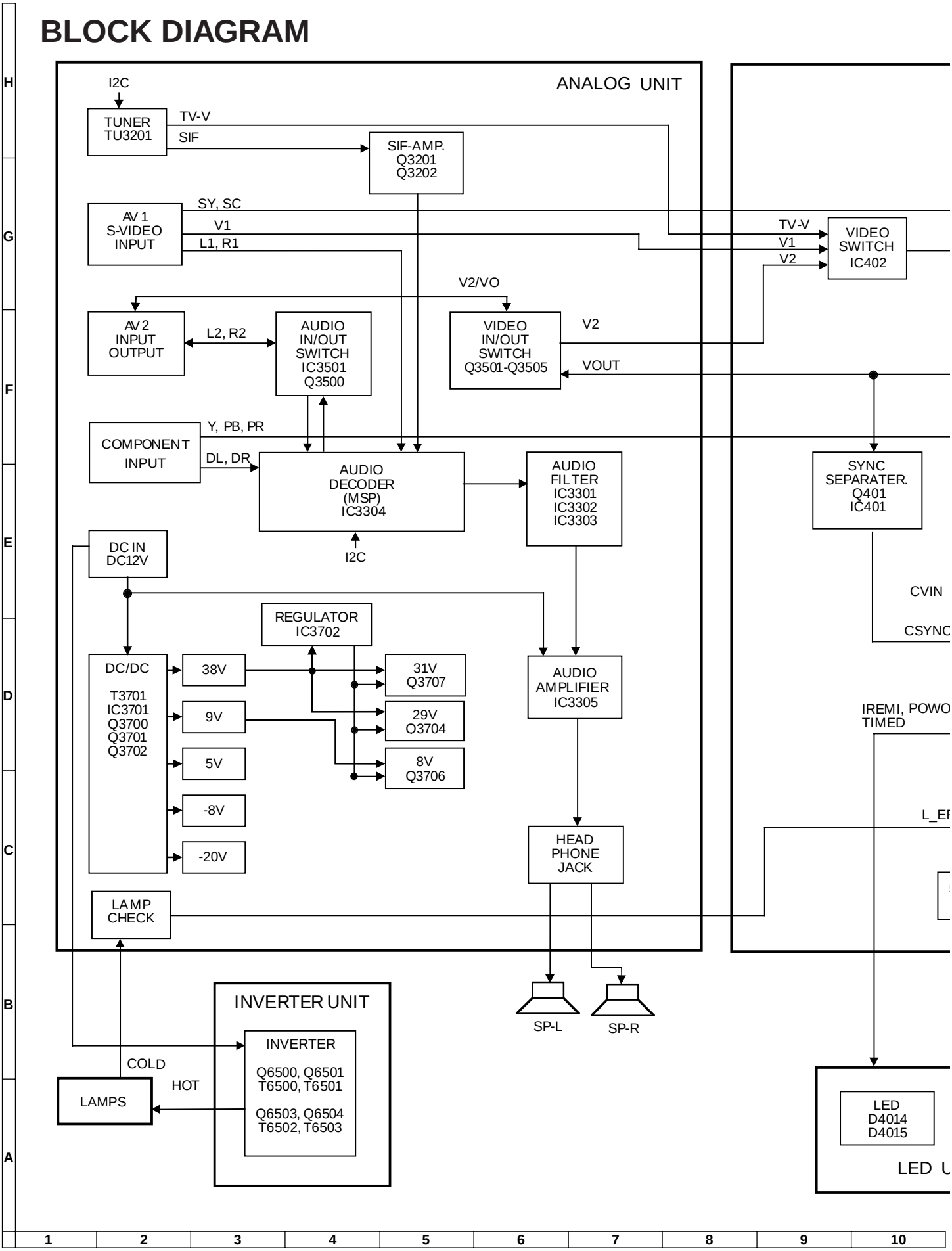


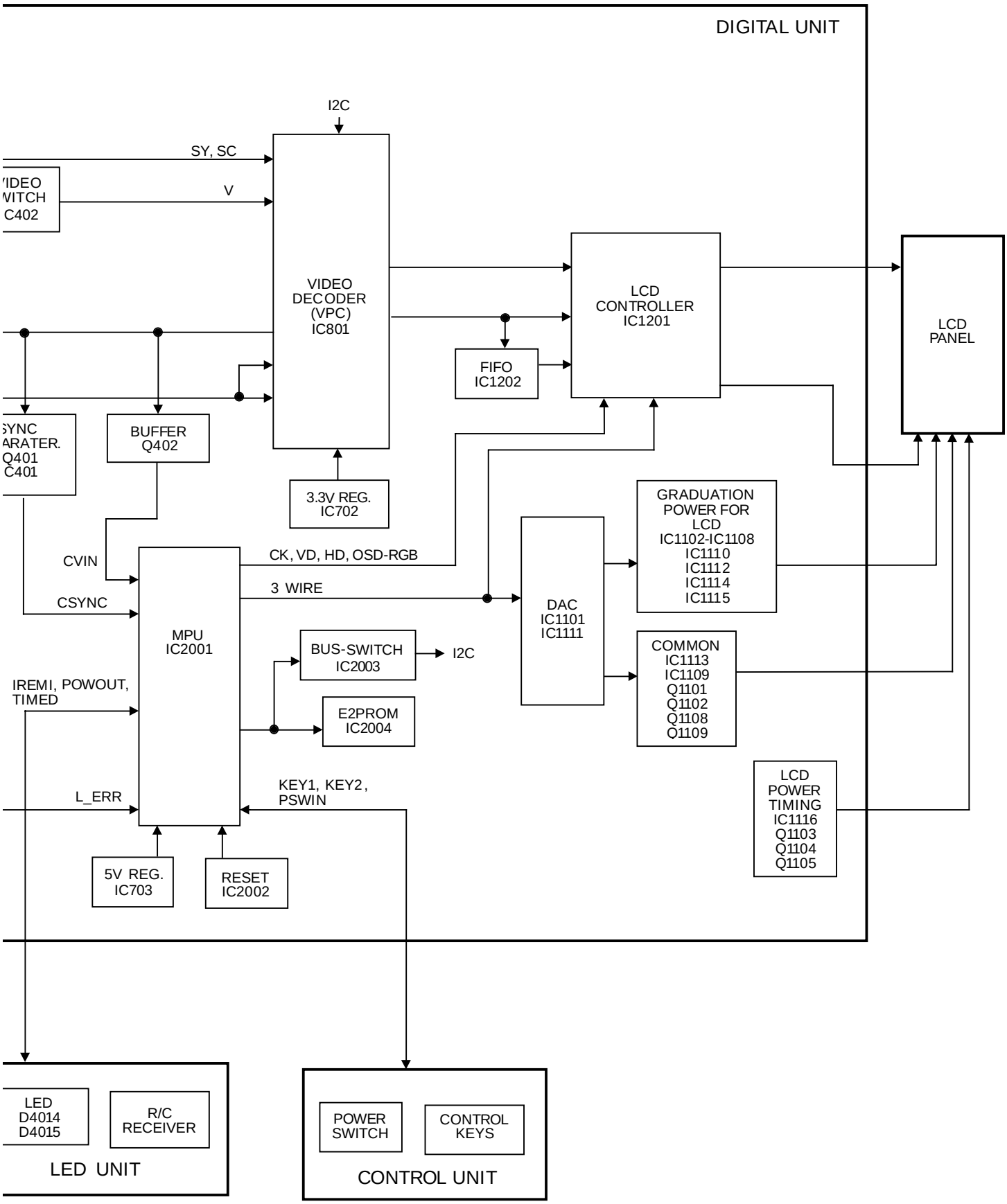
R/C, LED PWB



1	2	3	4	5	6

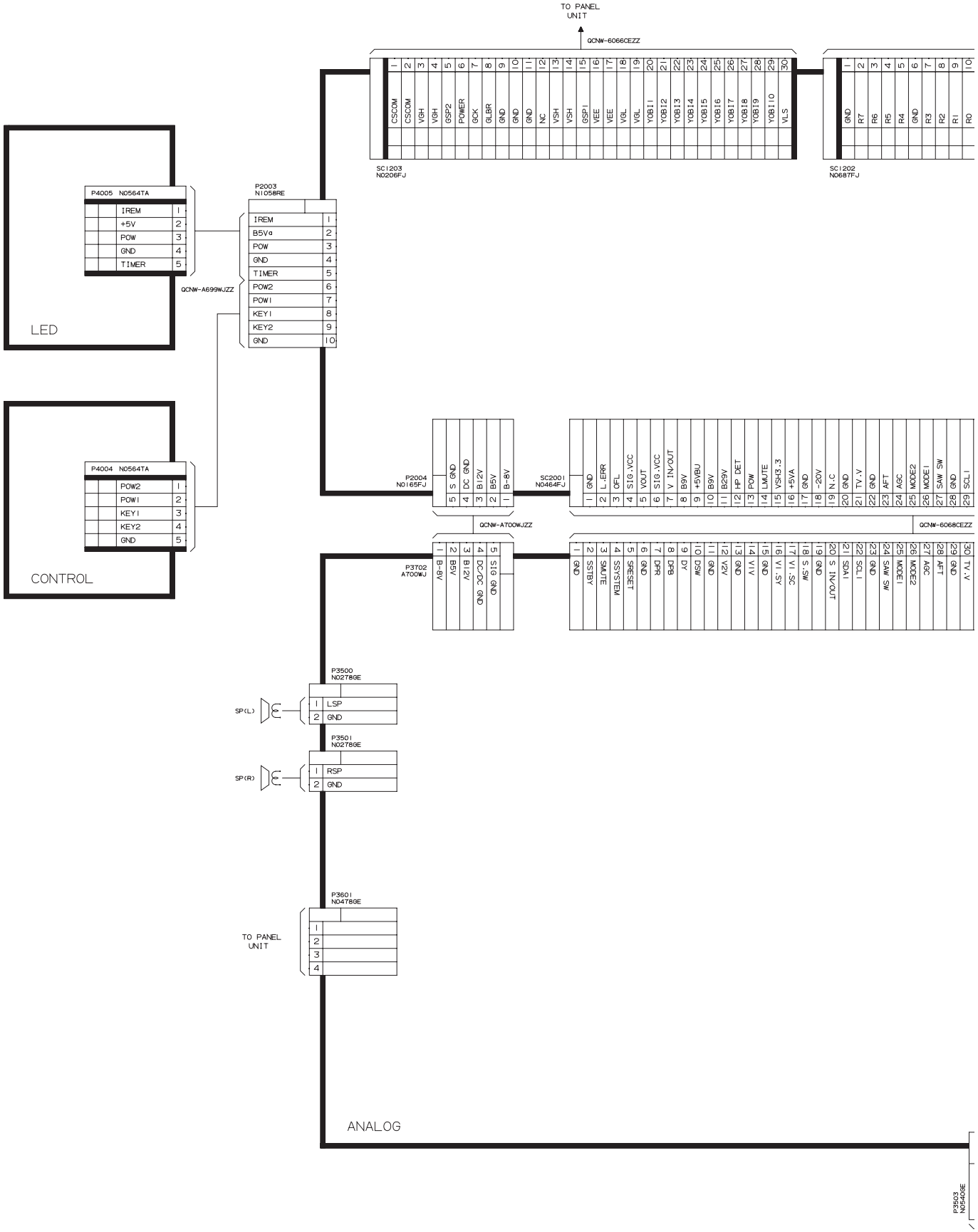
BLOCK DIAGRAM

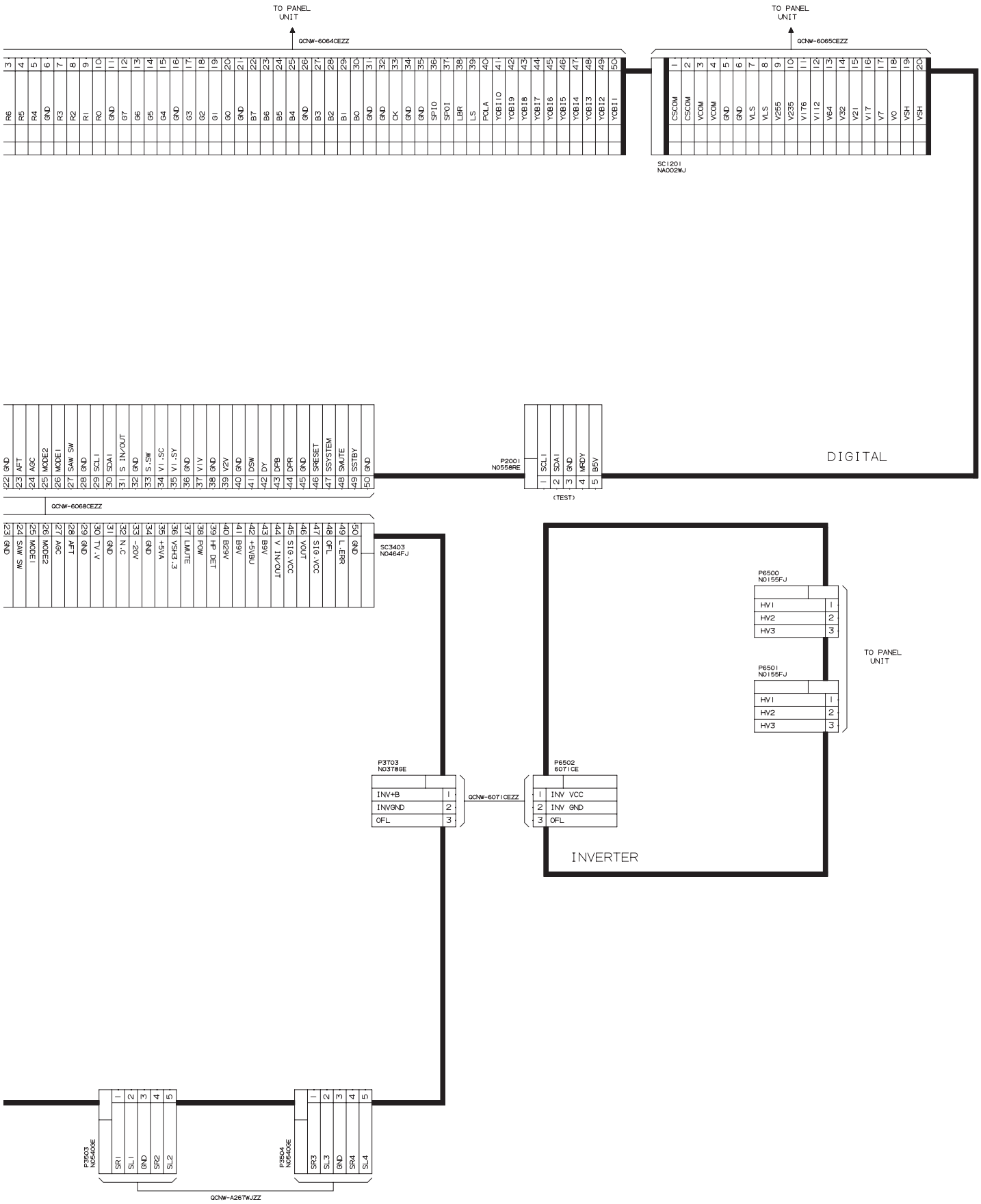




10	11	12	13	14	15	16	17	18	19

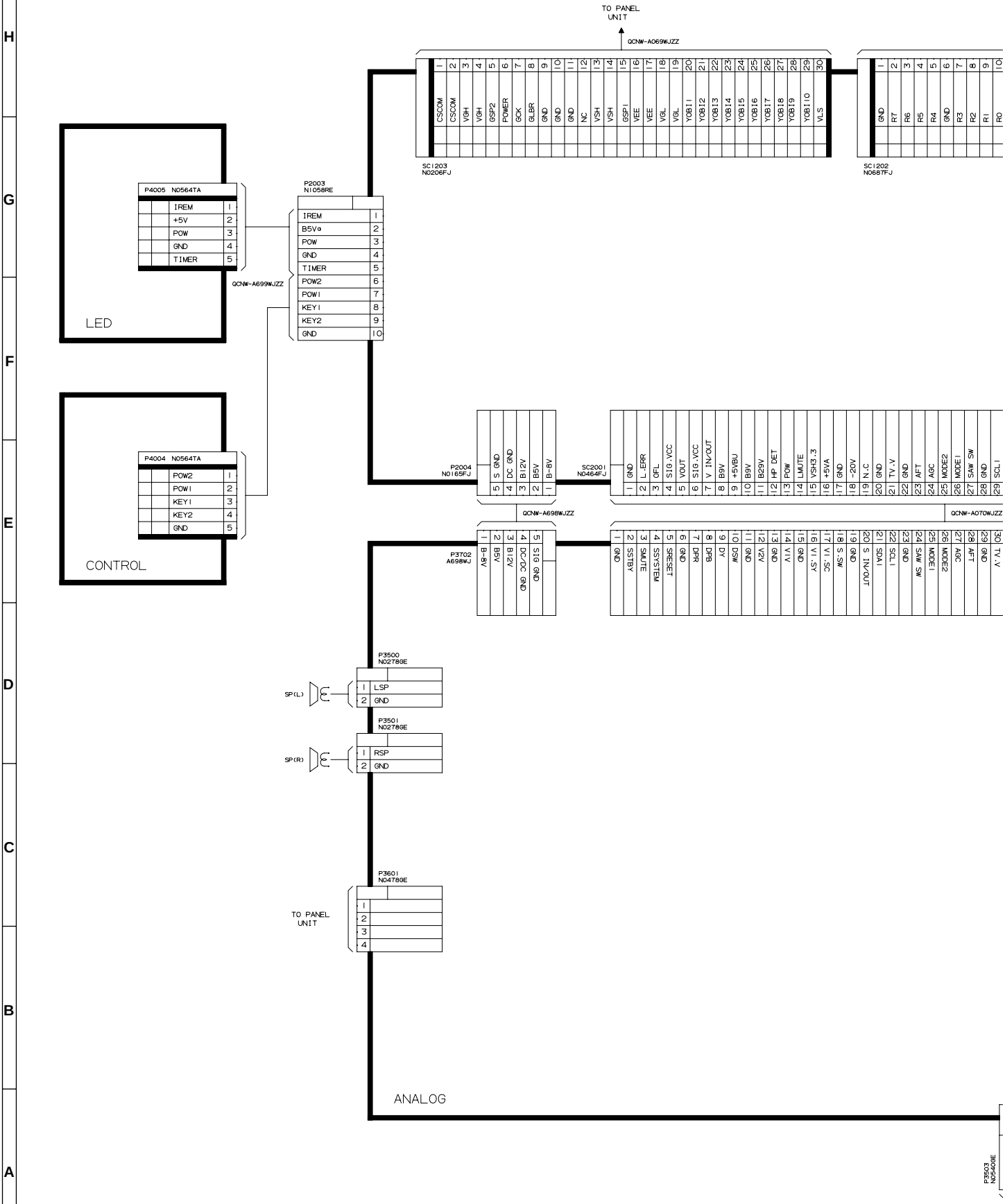
MODEL LC-13E1U OVERALL WIRING DIAGRAM

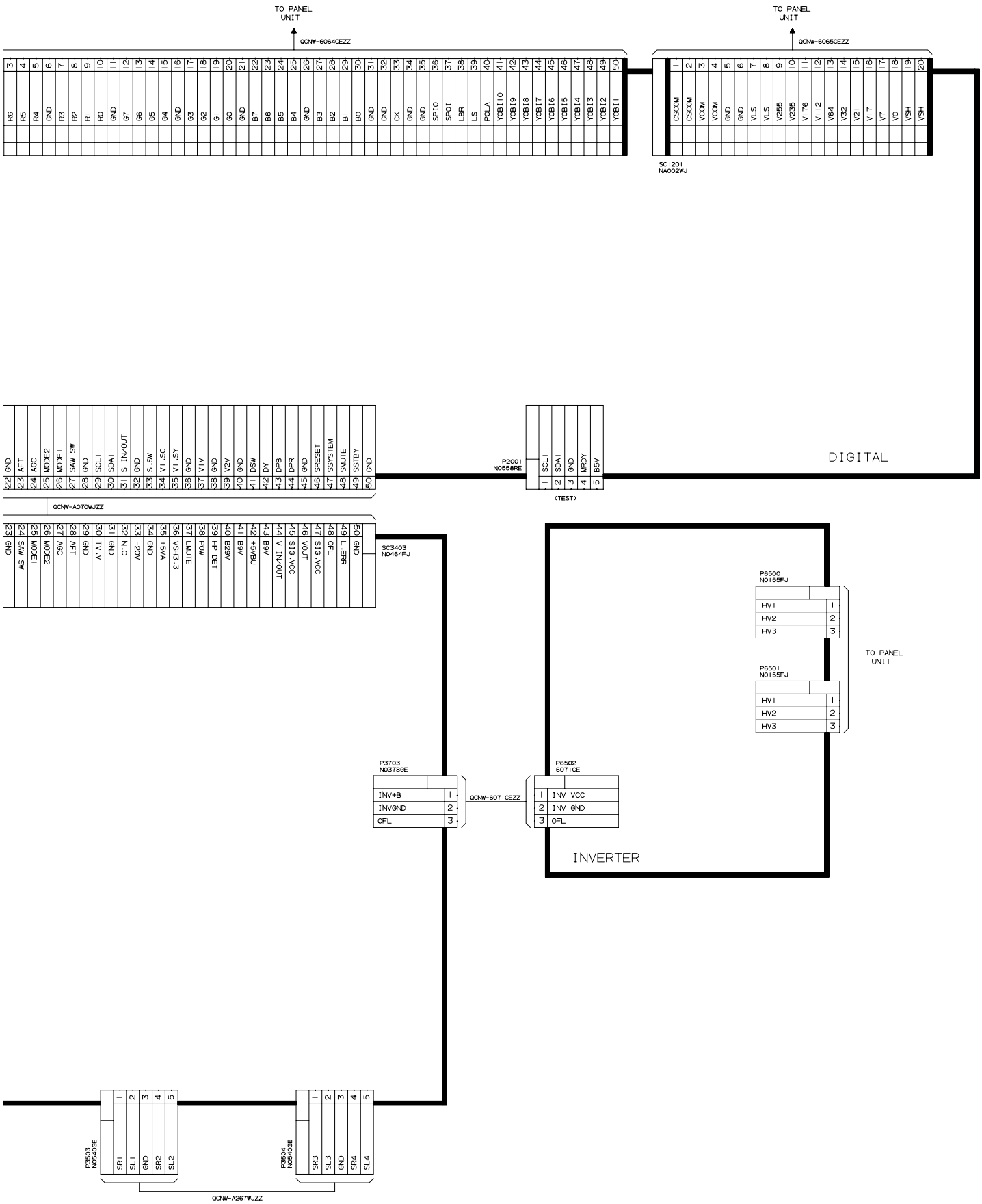




10	11	12	13	14	15	16	17	18	19

MODEL LC-15E1U OVERALL WIRING DIAGRAM





10	11	12	13	14	15	16	17	18	19

DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on exclusive AC adaptor and the stble supply voltage of AC 120V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted. (K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted. (J= ± 5%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/16W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.
   - Ⓒ: Solid
   - Ⓢ: Oxide Film
   - Ⓝ: Metal Coating
   - Ⓦ: Cement
   - Ⓣ: Special

CAPACITOR

1. All capacitors are μF, unless otherwise noted. (P=pF=μμF).
2. All capacitors are 50V, unless otherwise noted.
3. All capacitors are Ceramic type, unless otherwise noted.
   - (ML): Mylar
   - (PF): Polypro Film
   - (TA): Tantalum
   - (ST): Styrol

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

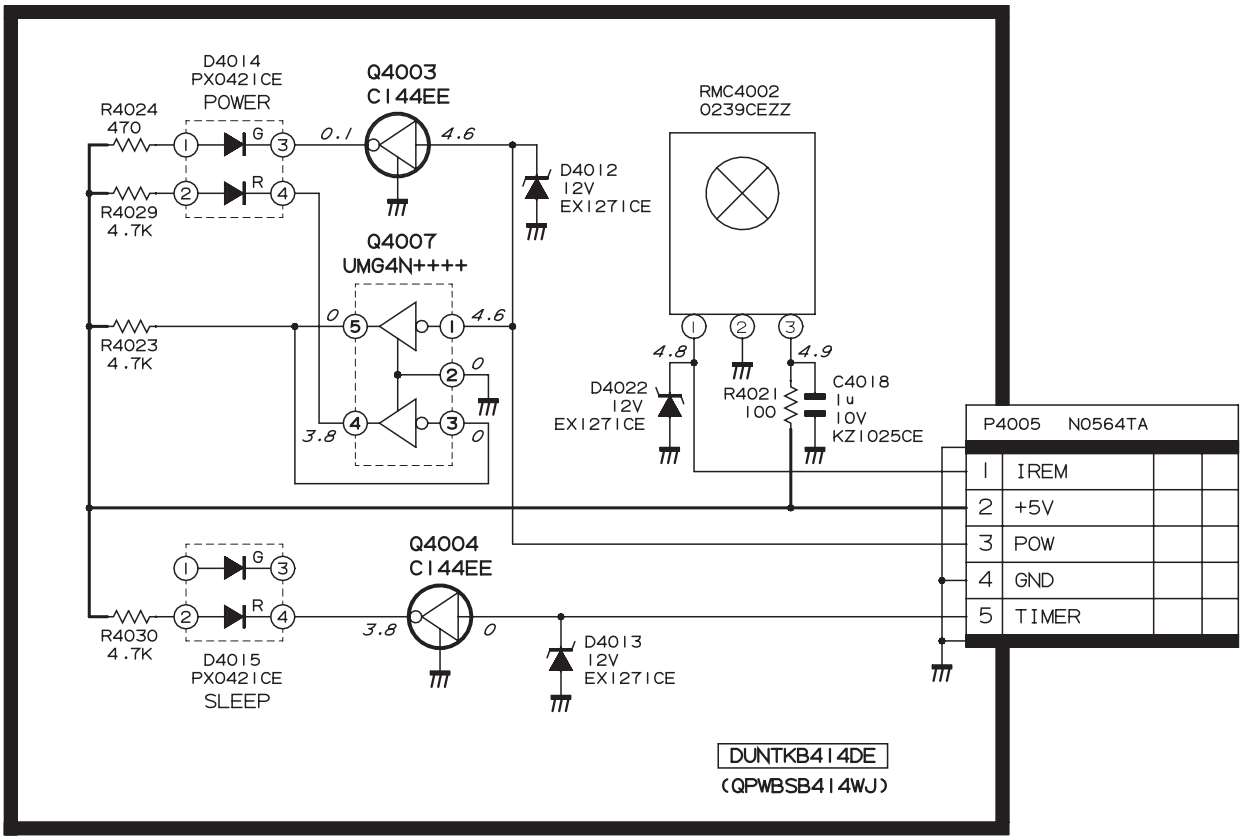
IMPORTANT SAFETY NOTICE:
PARTS MARKED WITH "⚠" ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

AVIS DE SECURITE IMPORTANT:
LES PIECES MARQUEES "⚠" ( )SONT IMPORTANTES POUR MAINTENIR LA SECURITE DE L'APPAREIL.
NE REMPLACER CES PIEDES QUE PAR DES PIECES DONT LE NUMERO EST SPECIFIE POUR MAINTENIR LA SECURITE ET PROTEGER LE BON FONCTIONNEMENT DE L'APPAREIL.

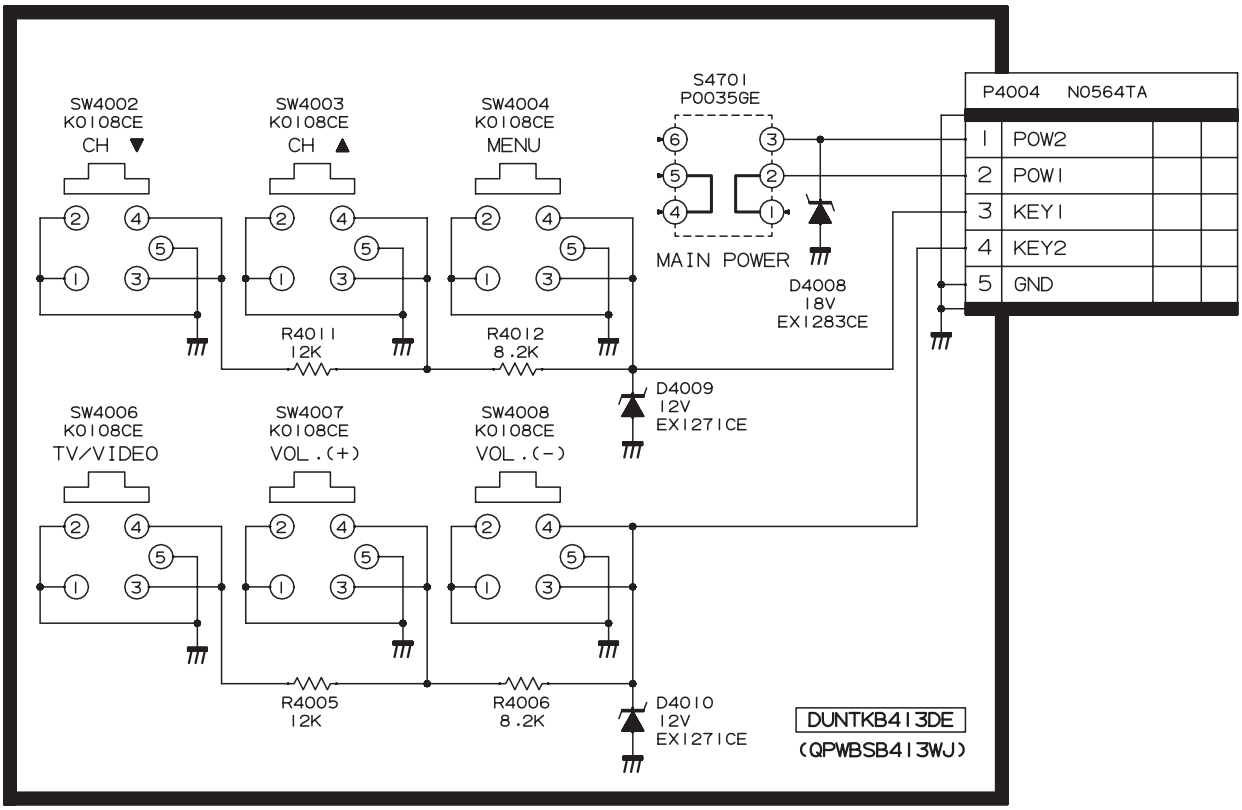
SCHEMATIC DIAGRAM

■R/C, LED and CONTROL Unit

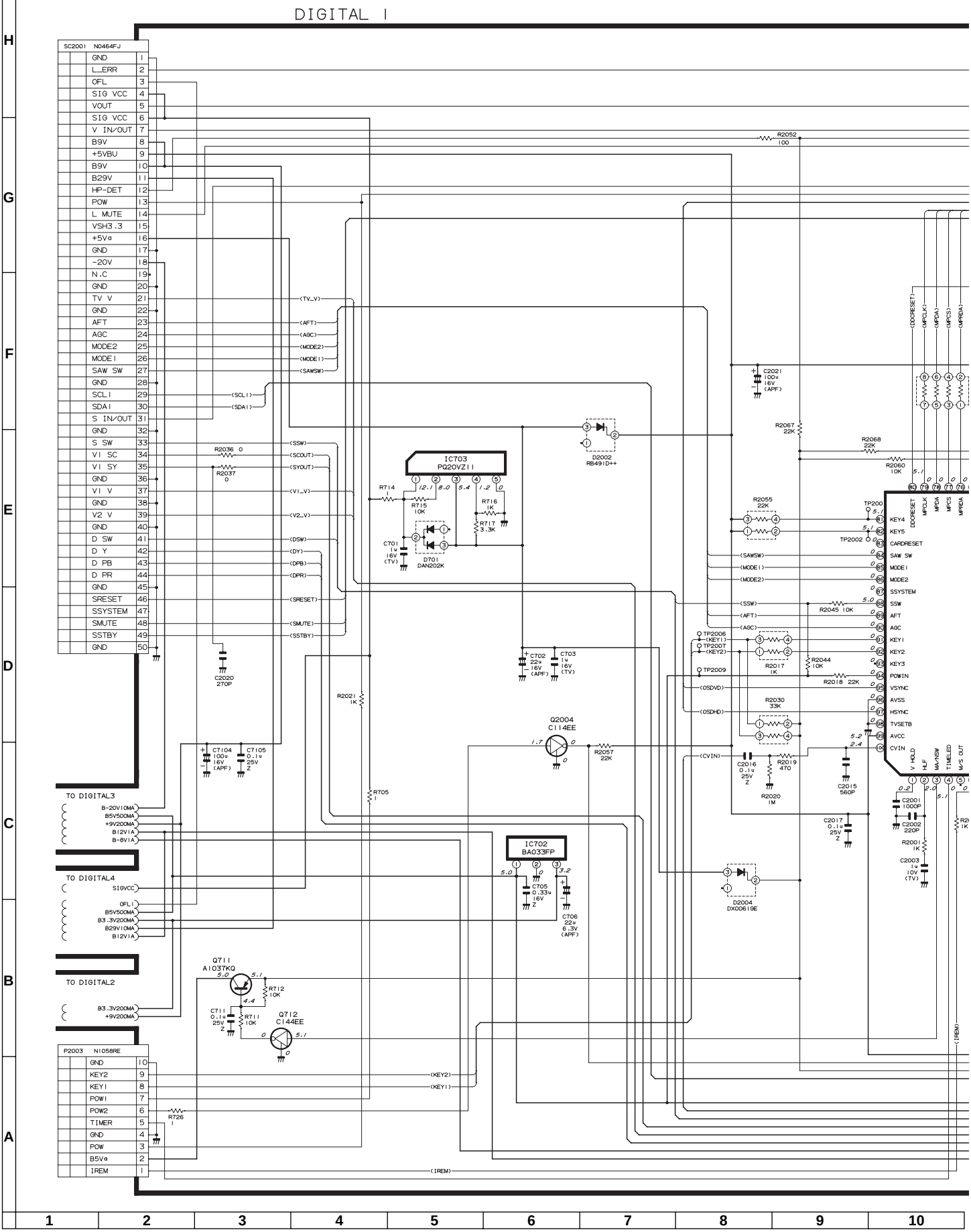
R/C LED

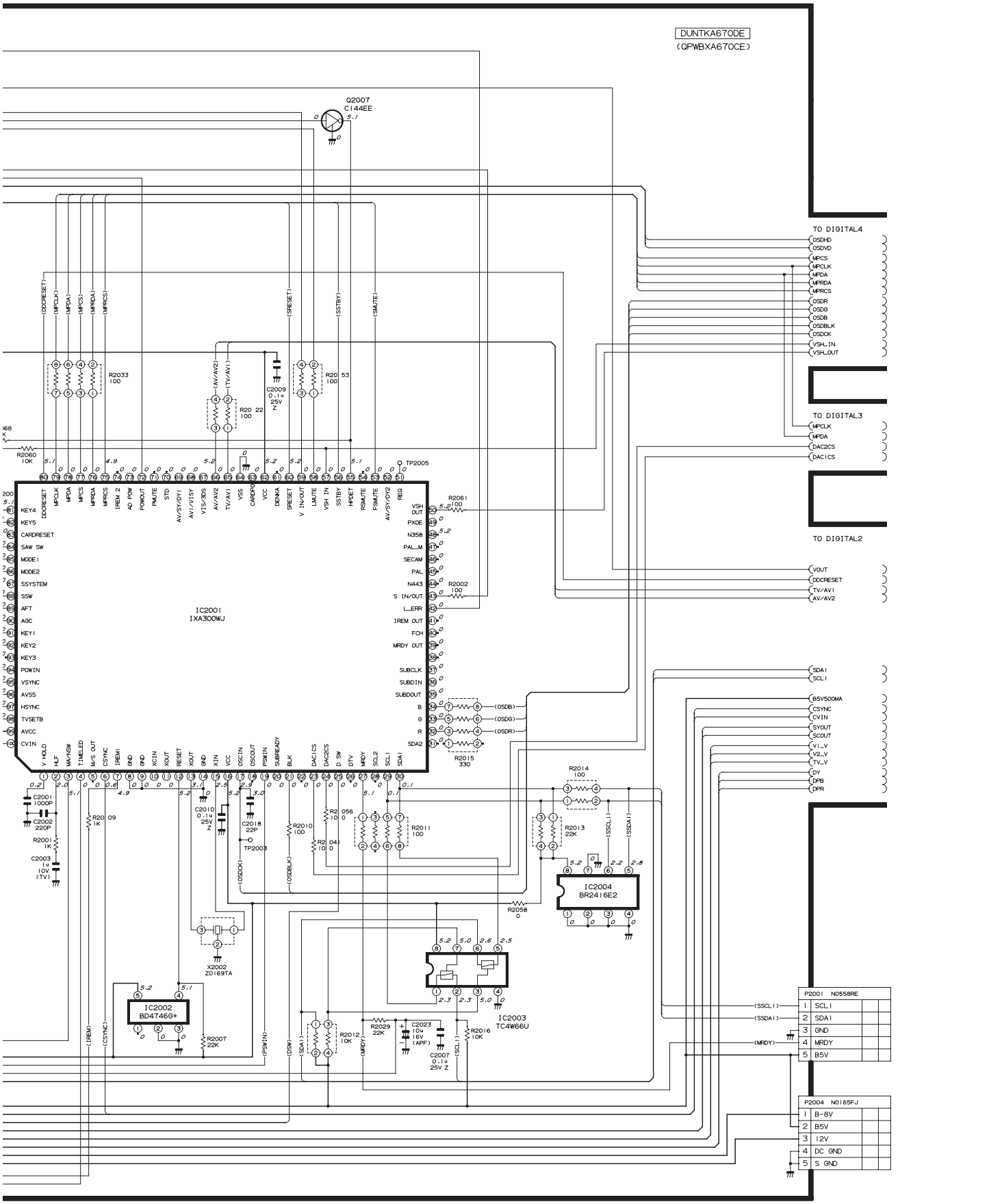


CONTROL



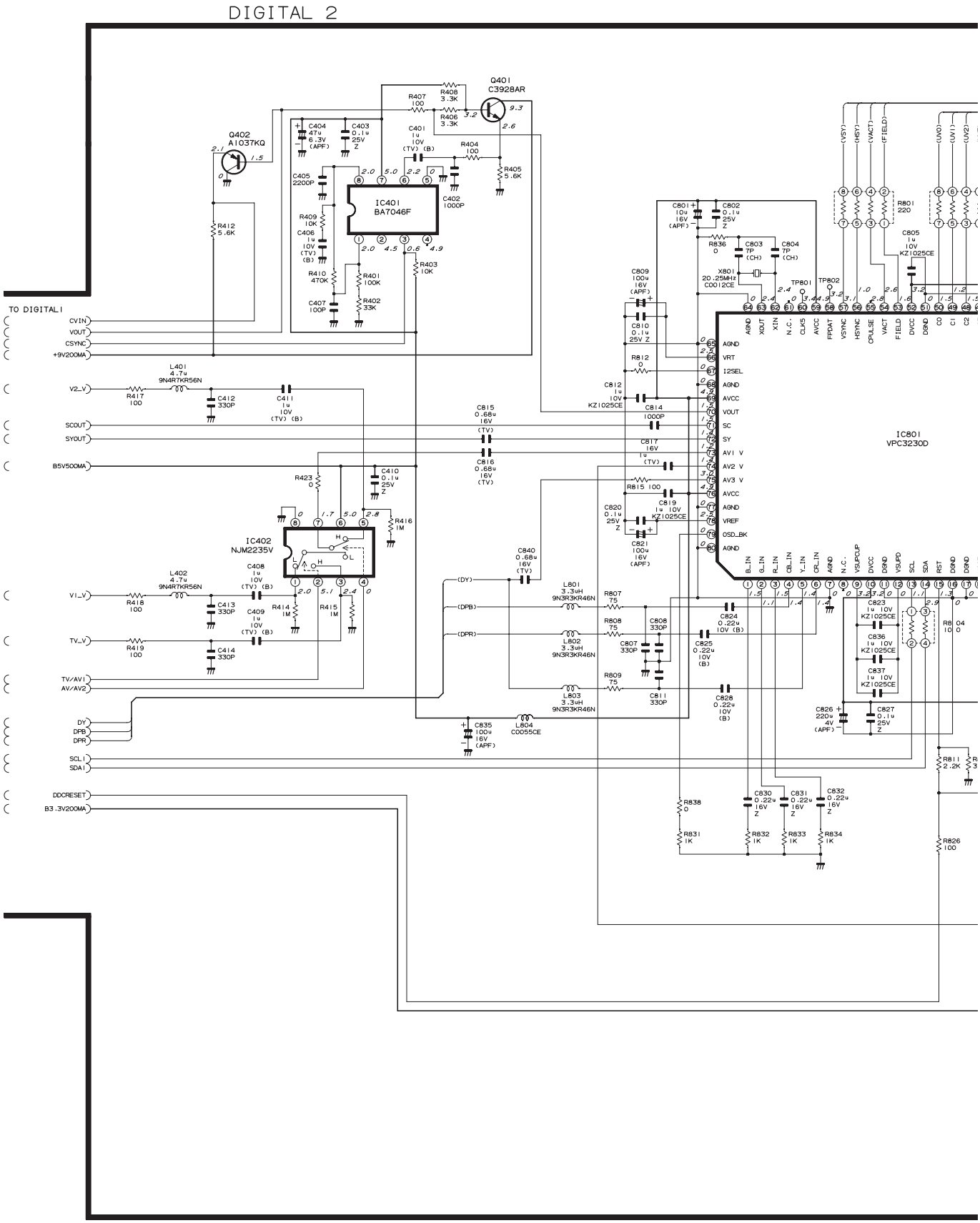
■ DIGITAL Unit-1/4

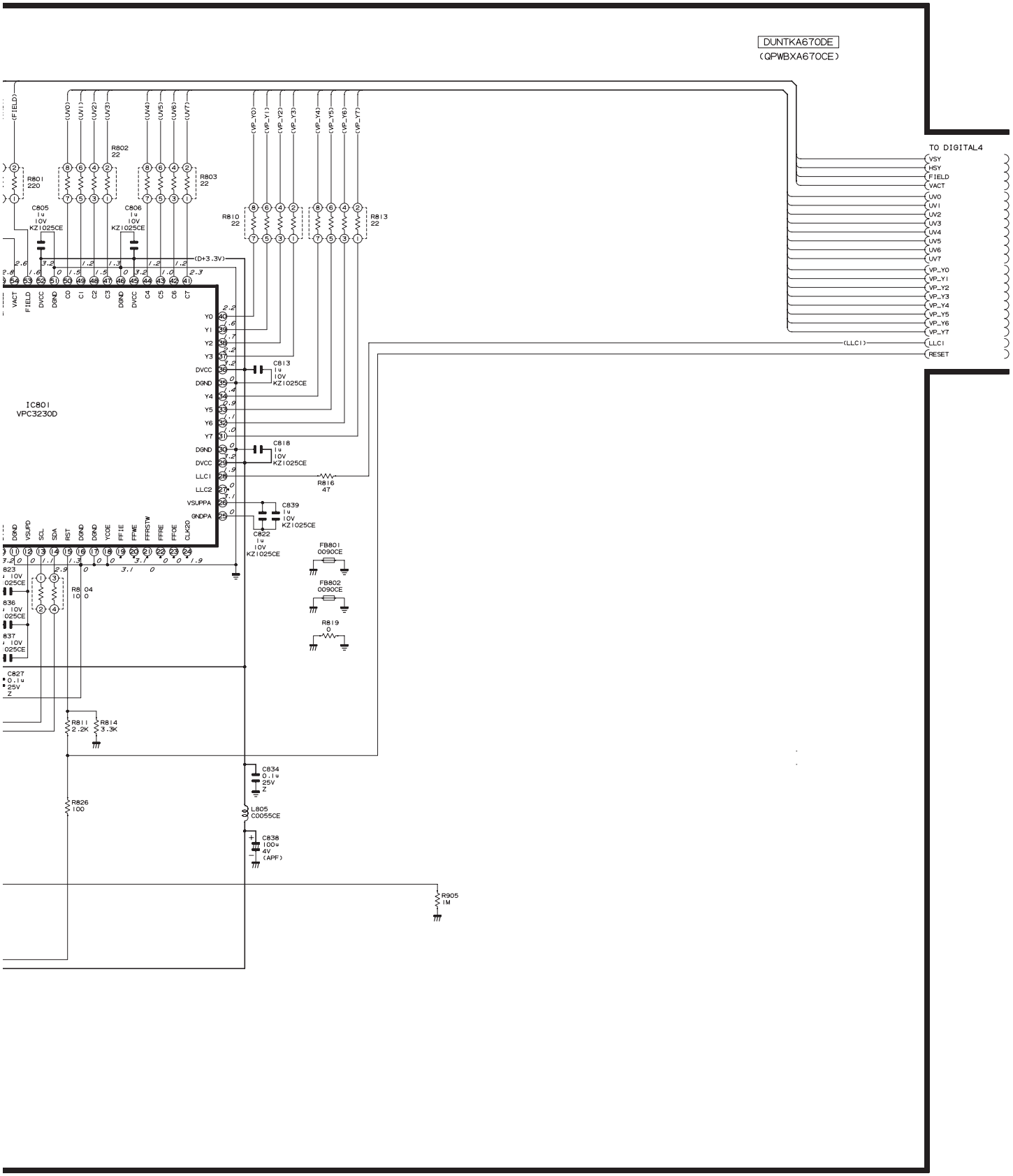




10	11	12	13	14	15	16	17	18	19

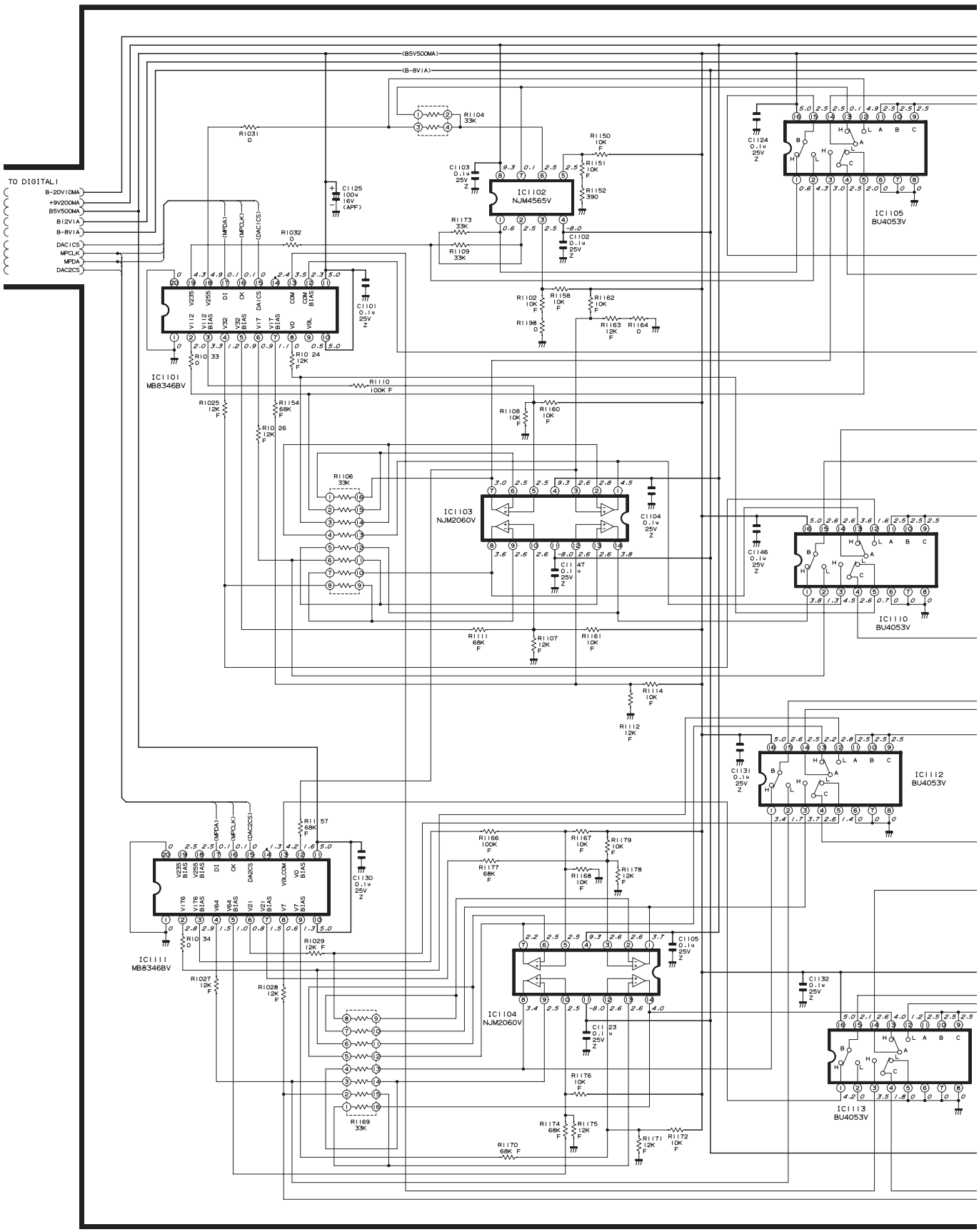
■ DIGITAL Unit-2/4

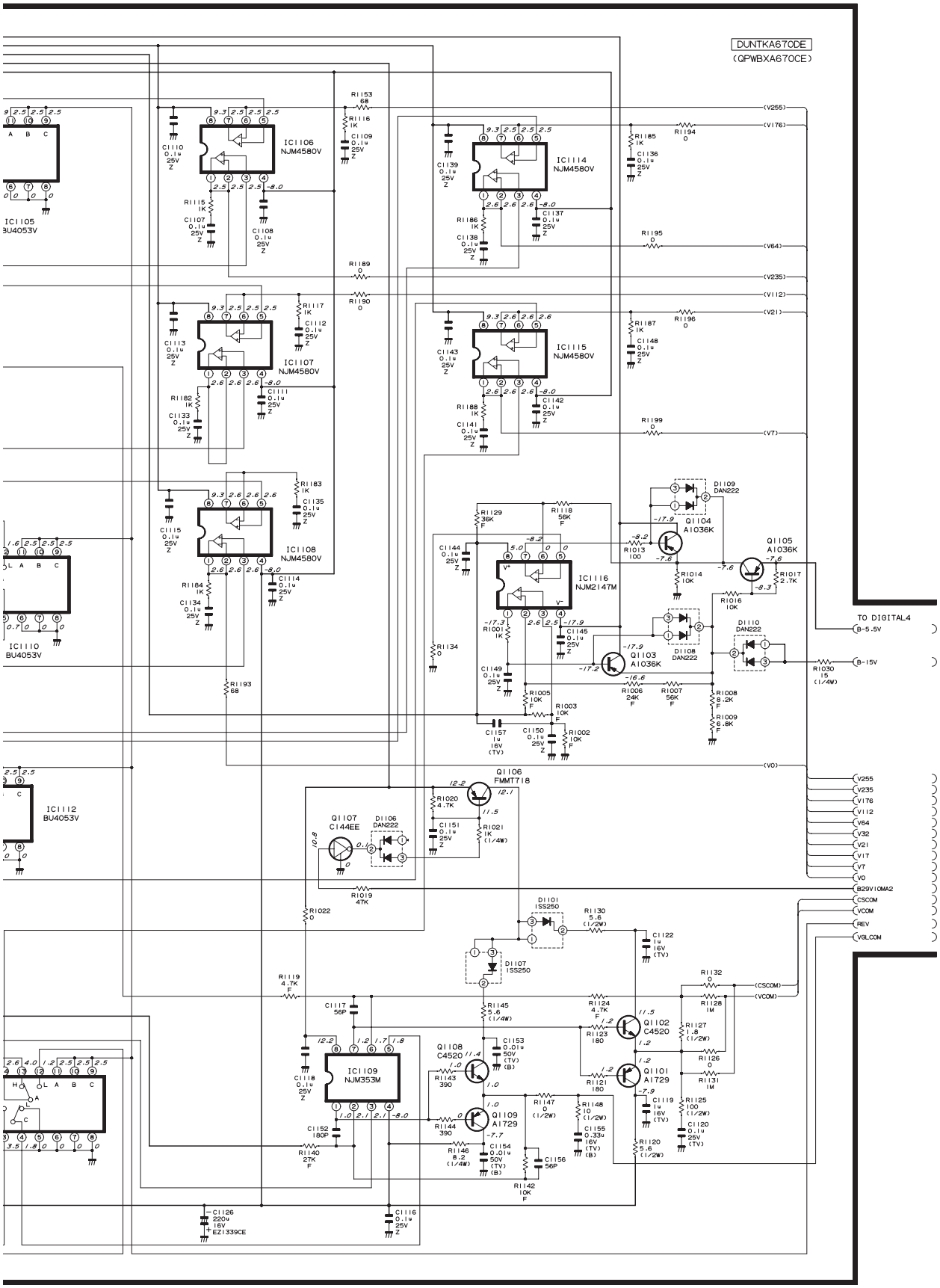




10	11	12	13	14	15	16	17	18	19

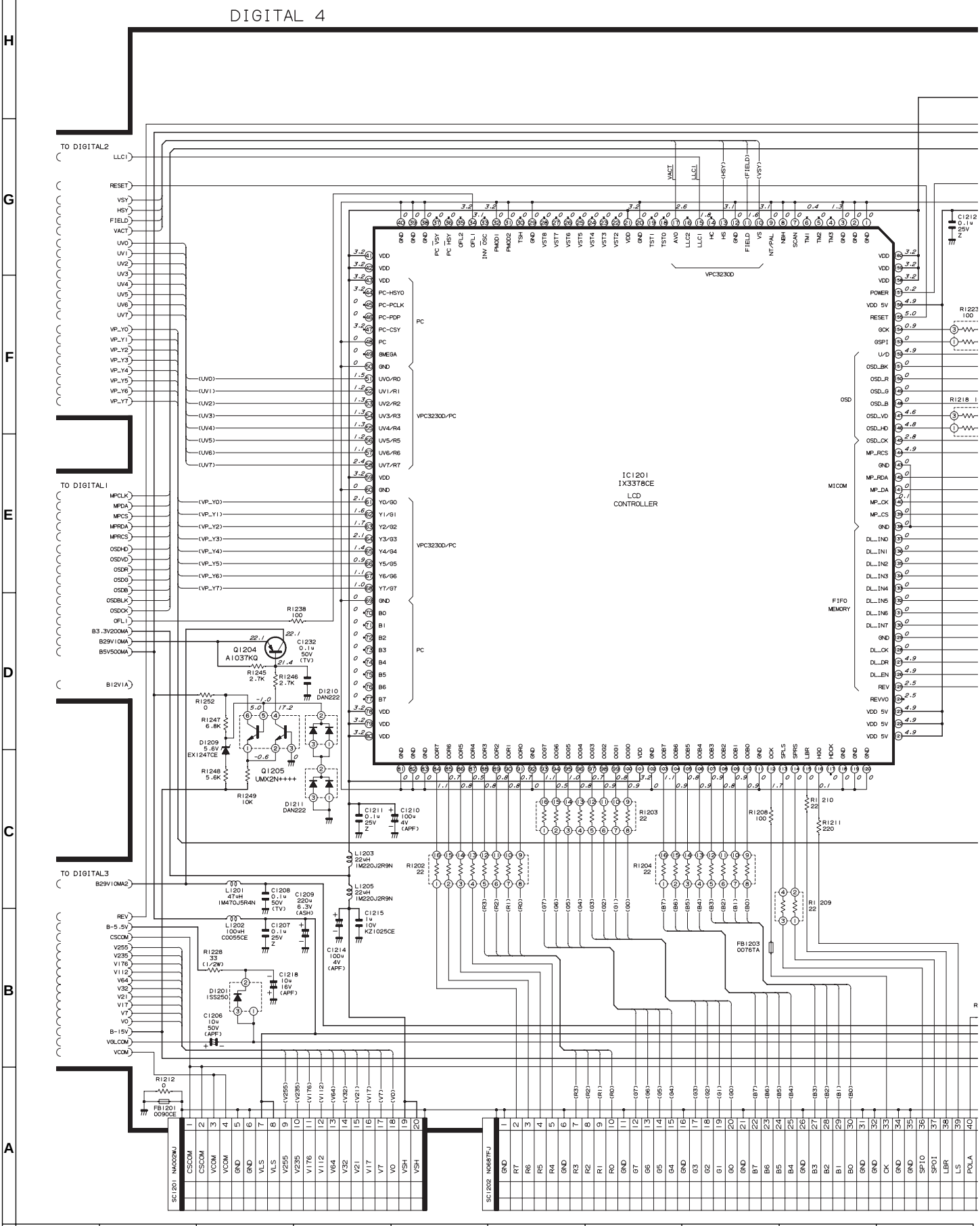
■ DIGITAL Unit-3/4

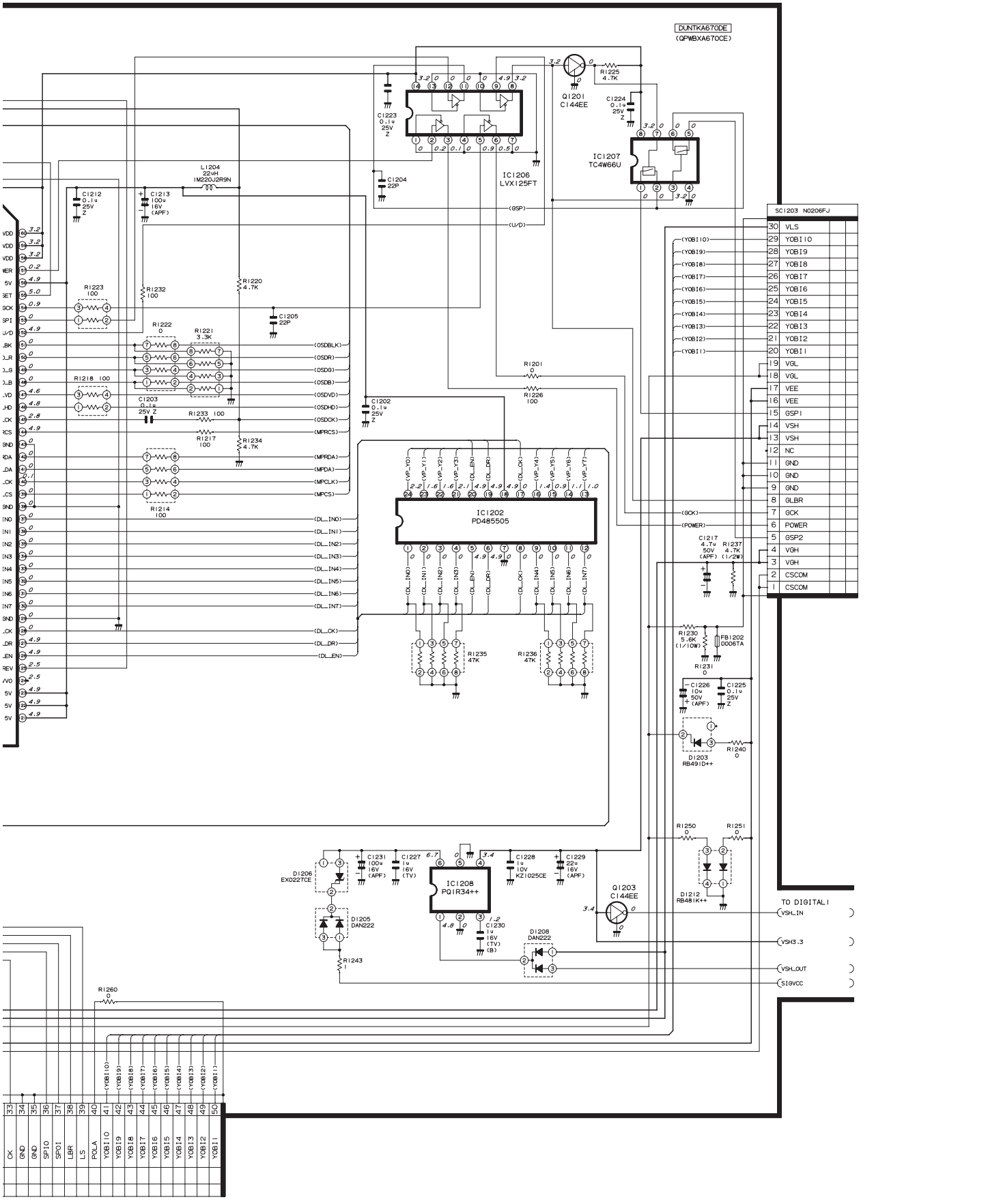




10	11	12	13	14	15	16	17	18	19

■ DIGITAL Unit-4/4





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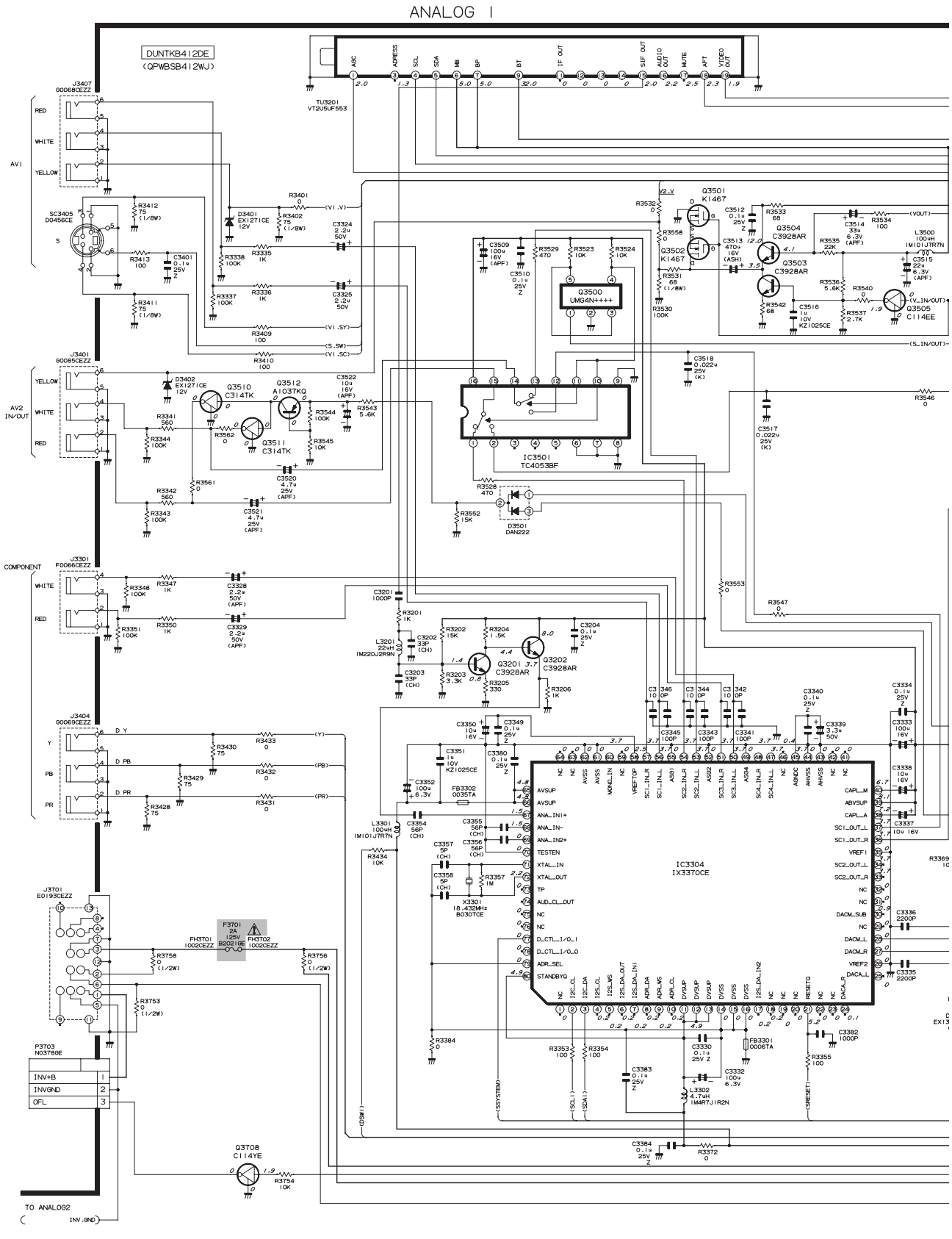
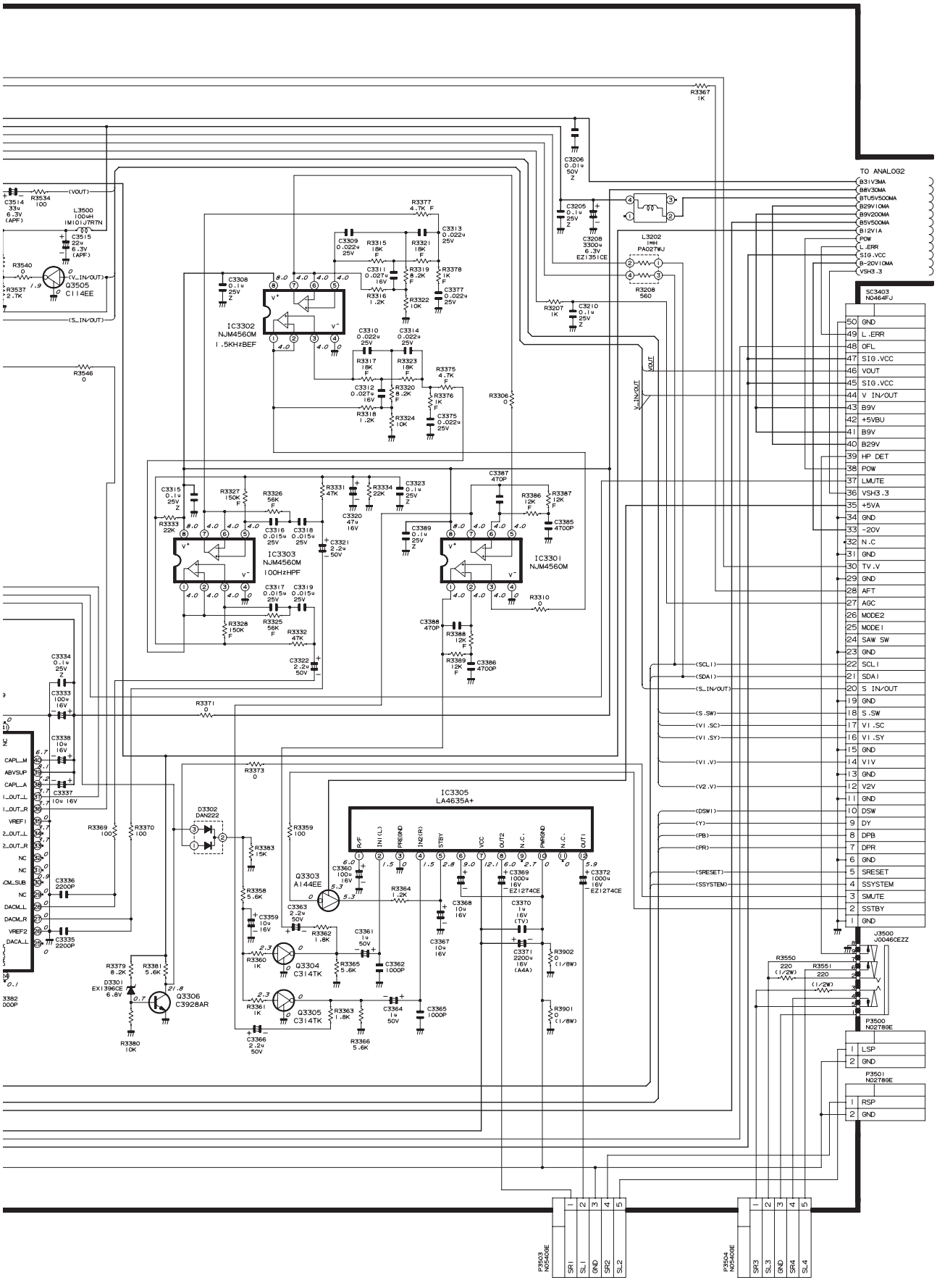
■ ANALOG Unit-1/2 (LC-13E1U)





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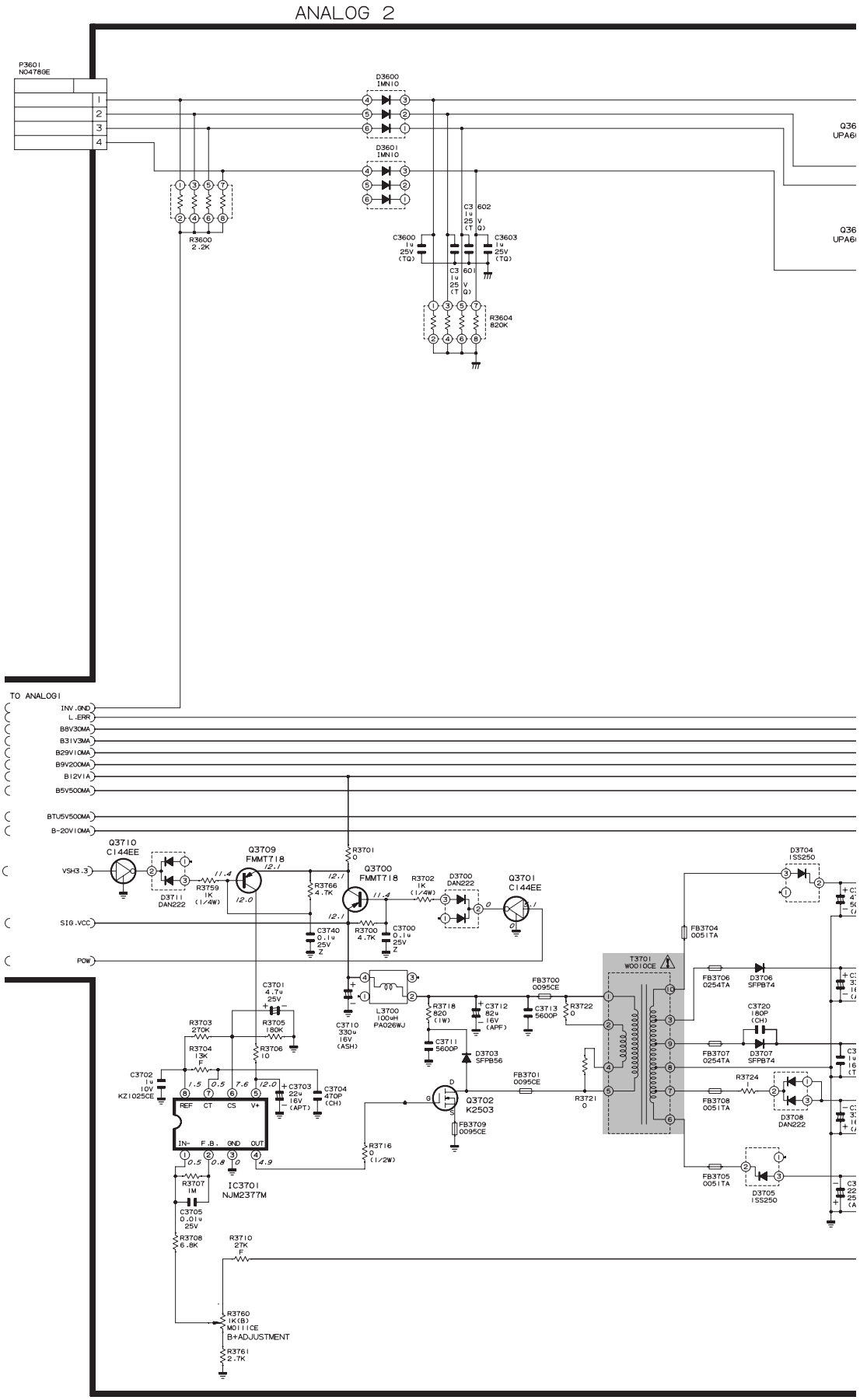
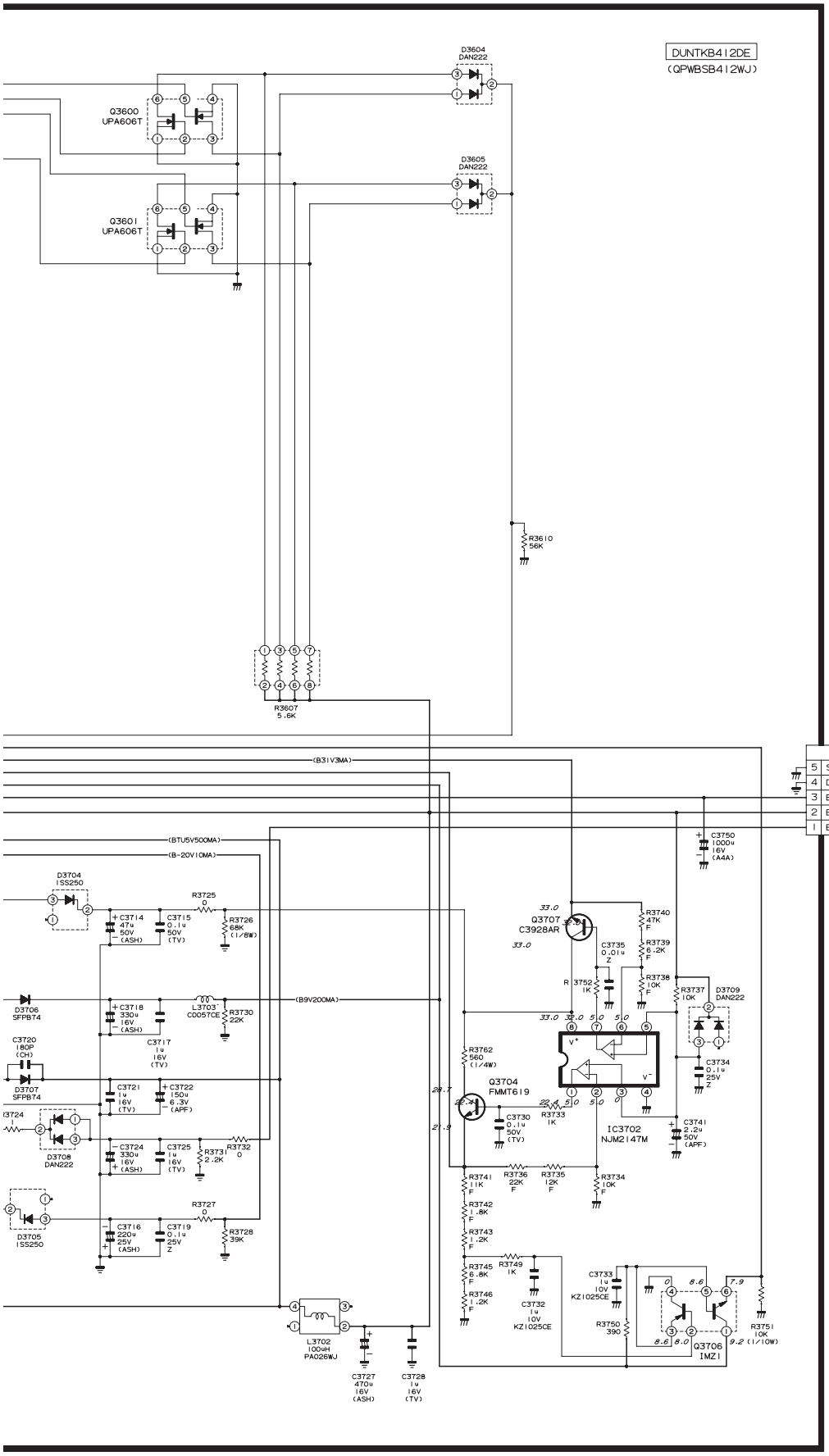
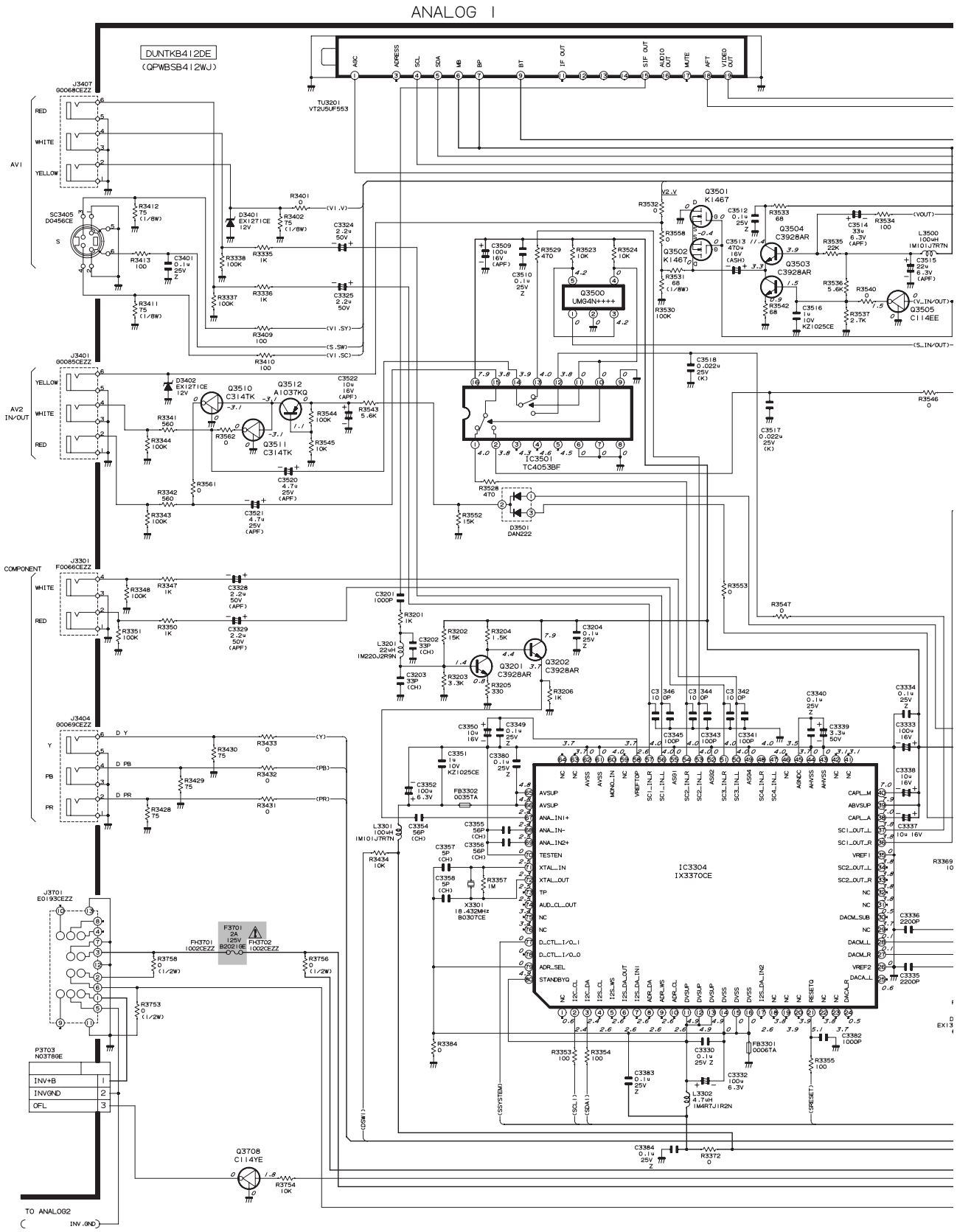
■ ANALOG Unit-2/2 (LC-13E1U)

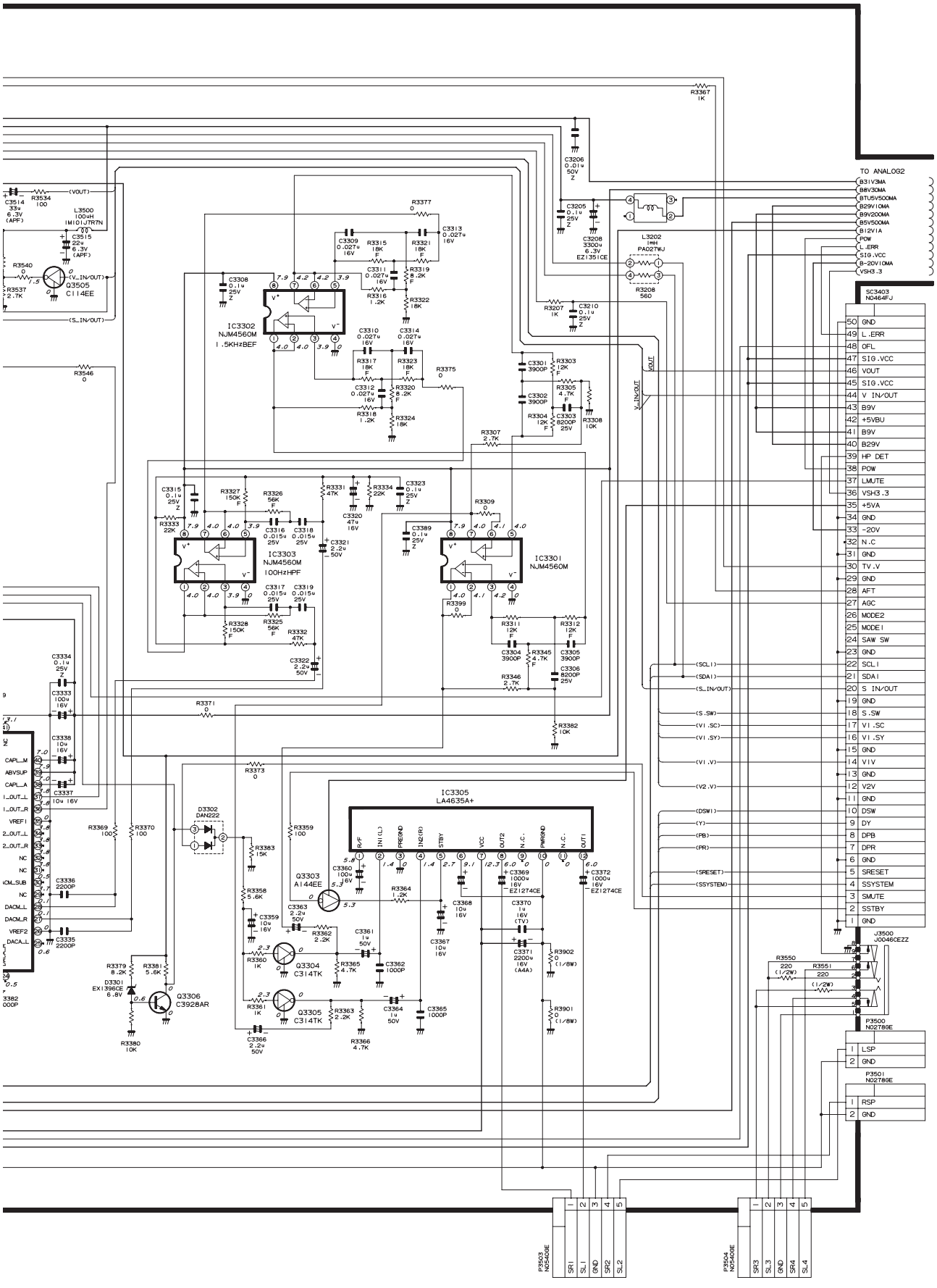




10	11	12	13	14	15	16	17	18	19

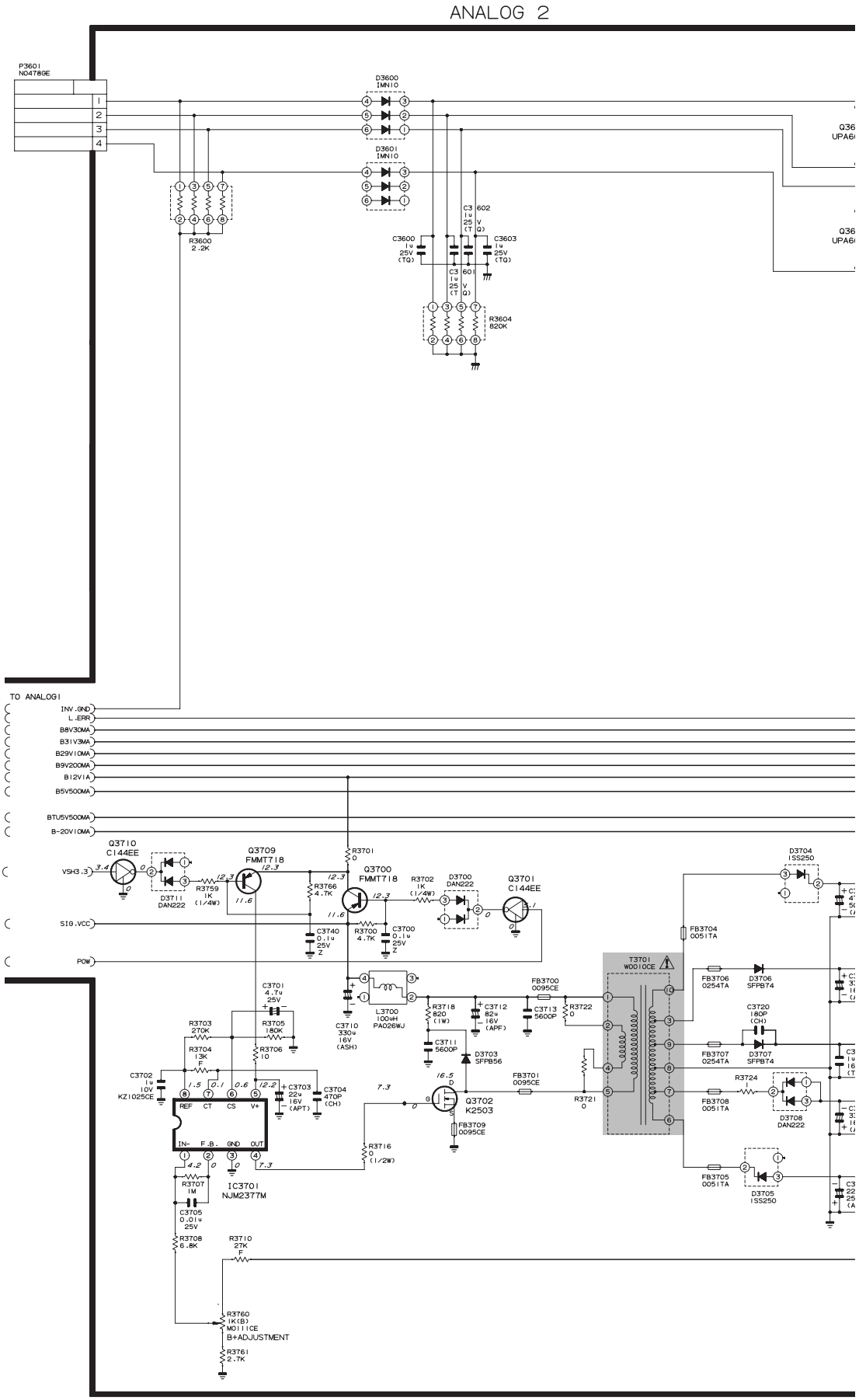
■ ANALOG Unit-1/2 (LC-15E1U)

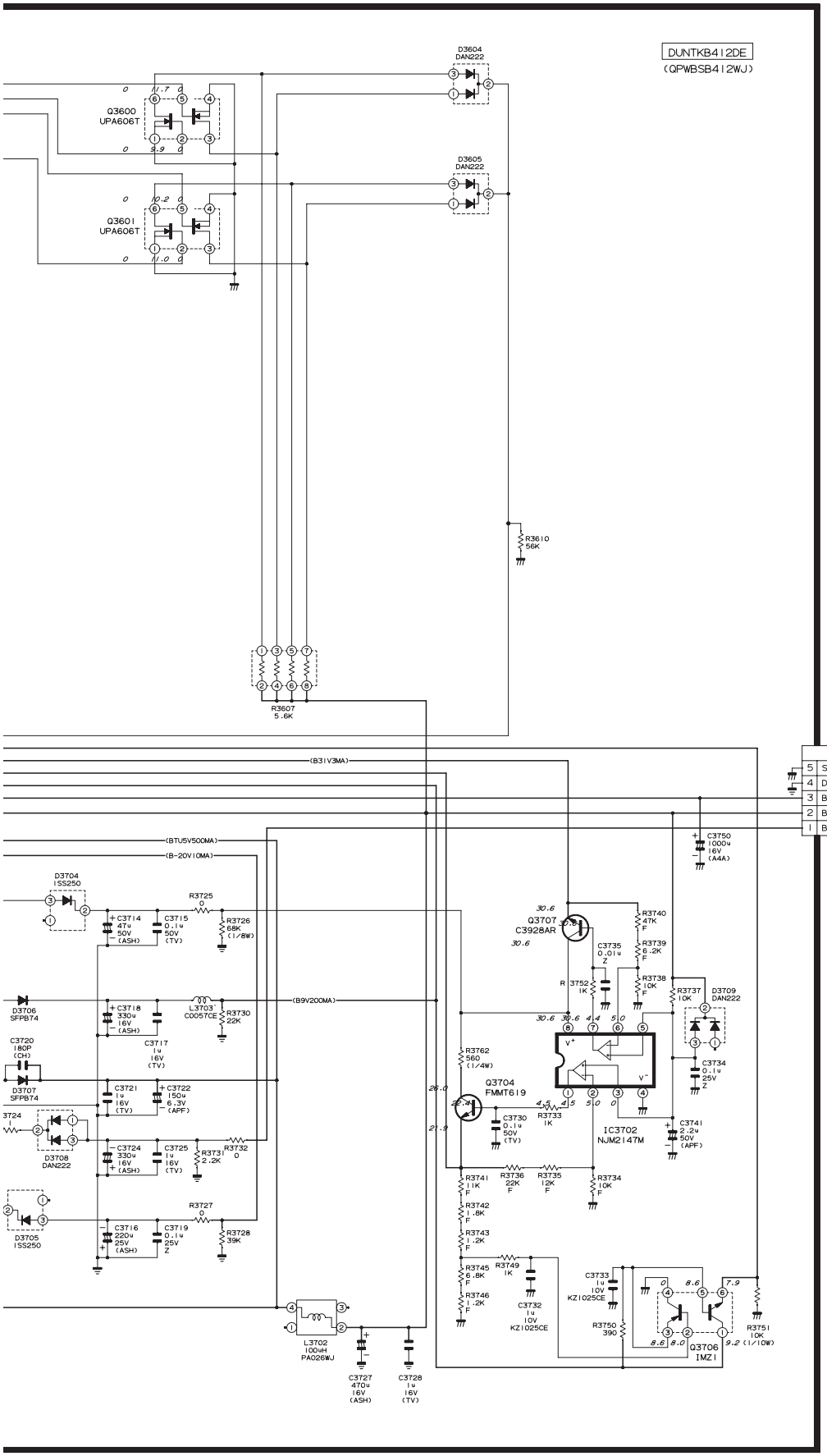




10	11	12	13	14	15	16	17	18	19

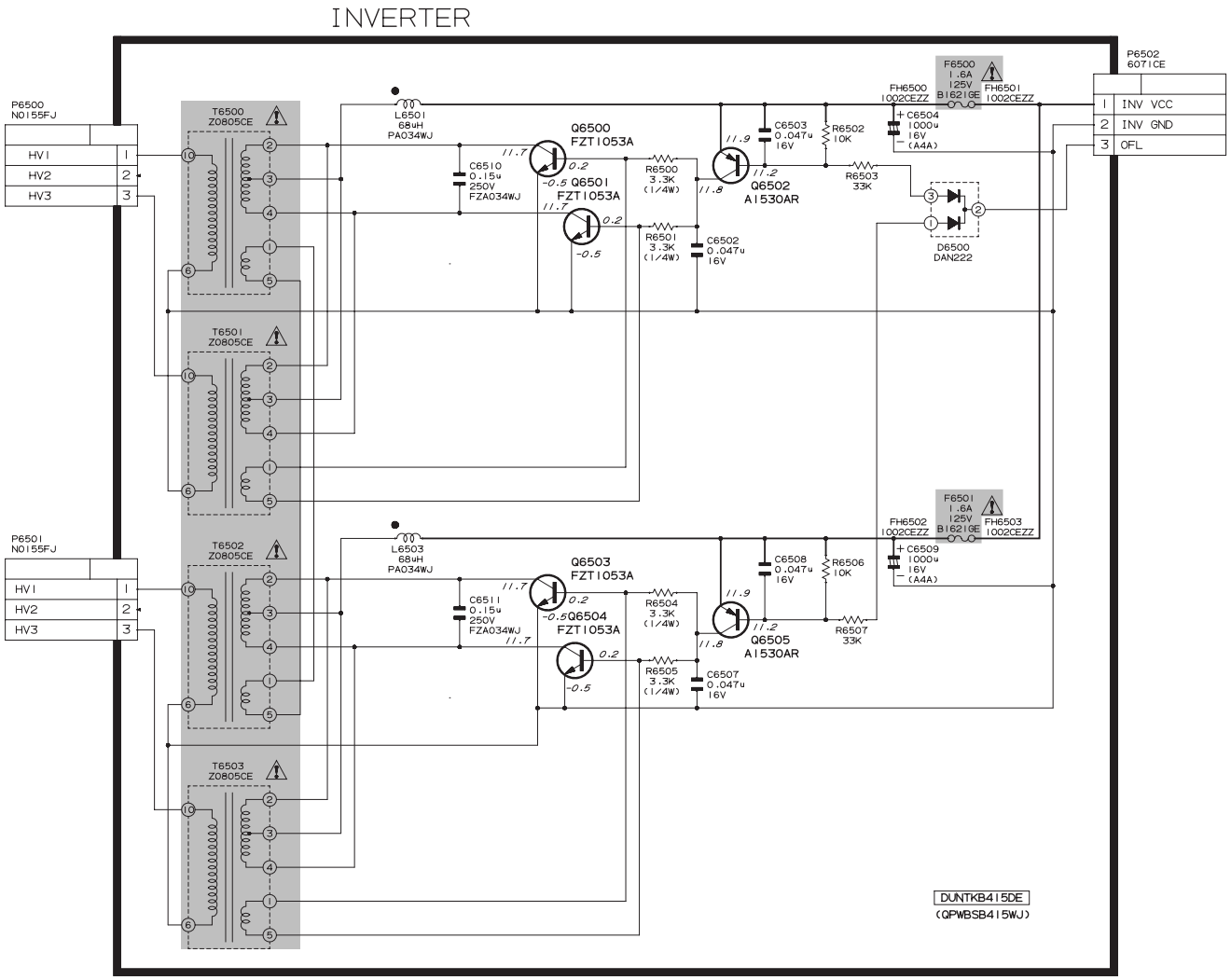
■ ANALOG Unit-2/2 (LC-15E1U)



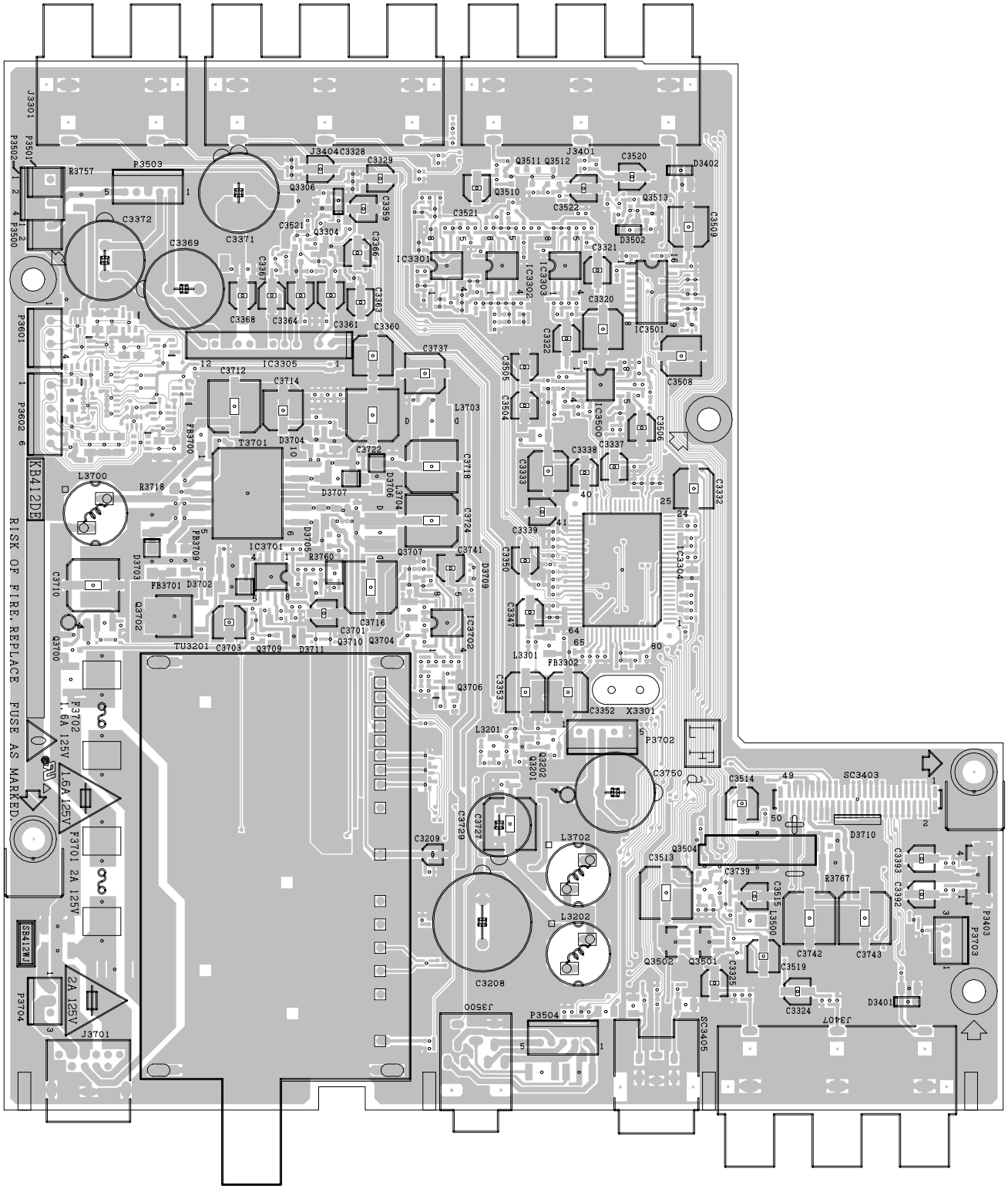


10	11	12	13	14	15	16	17	18	19

■ INVERTER Unit

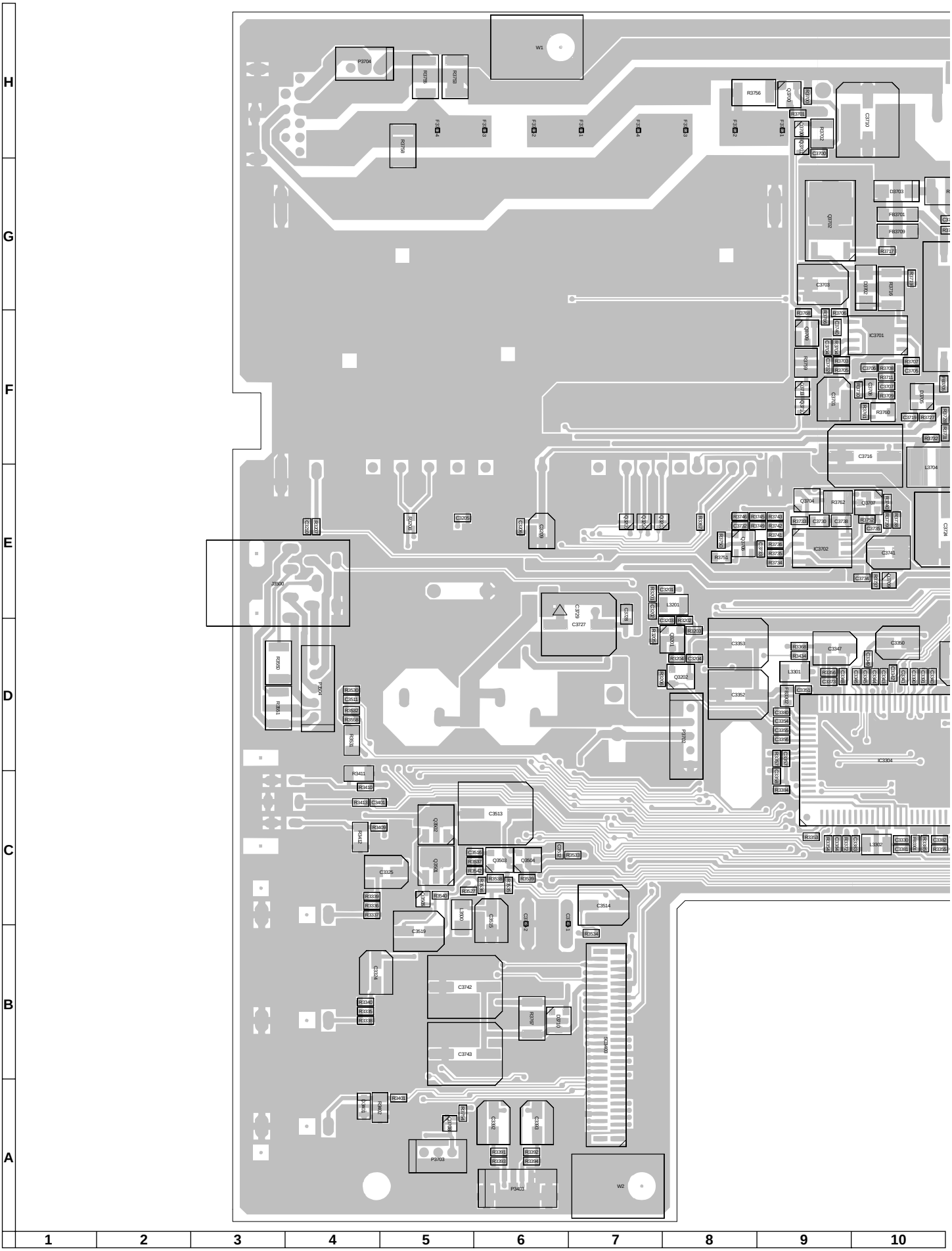


PRINTED WIRING BOARD ASSEMBLIES



ANALOG Unit (Side-A)

	1	2	3	4	5	6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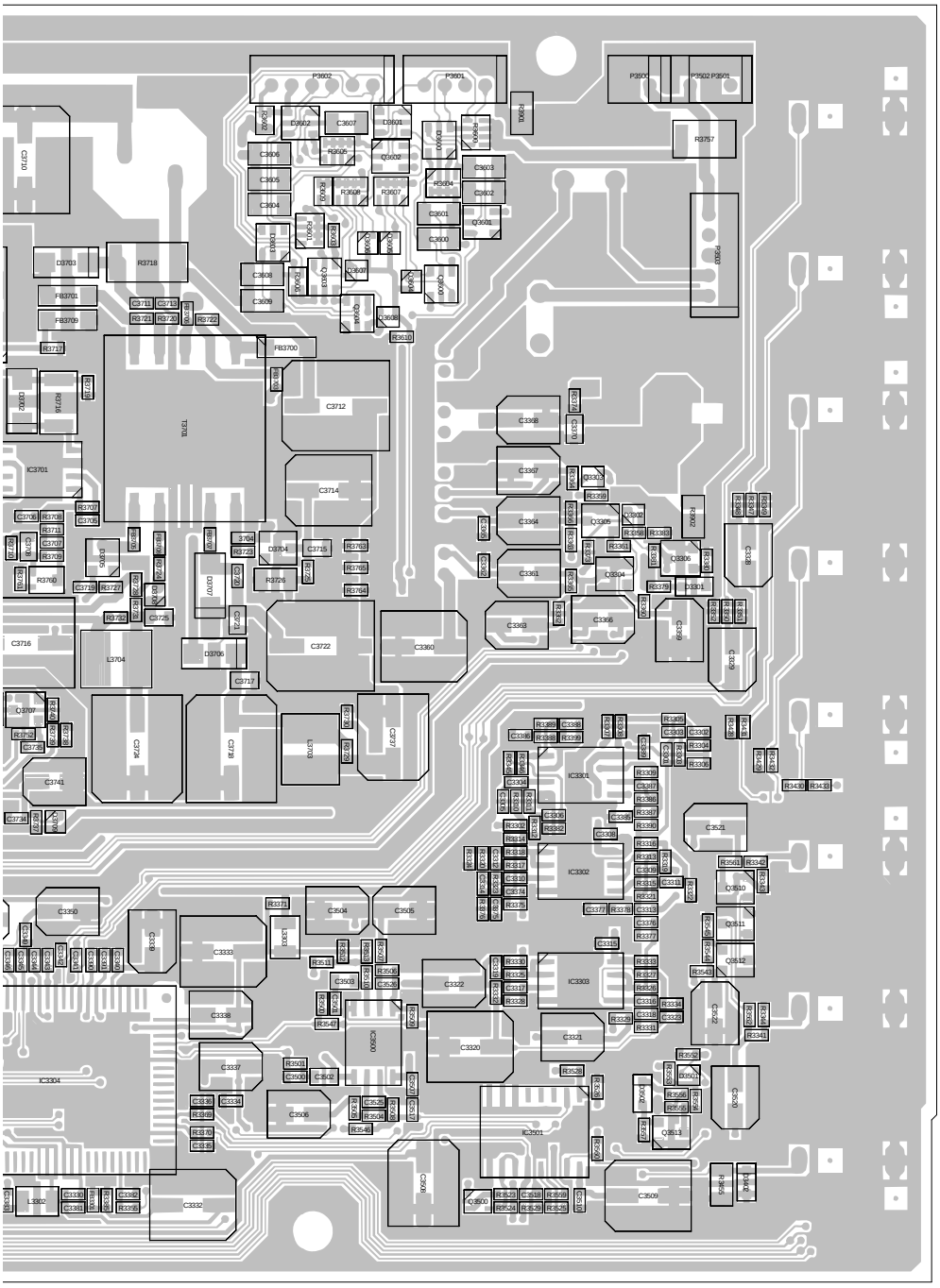
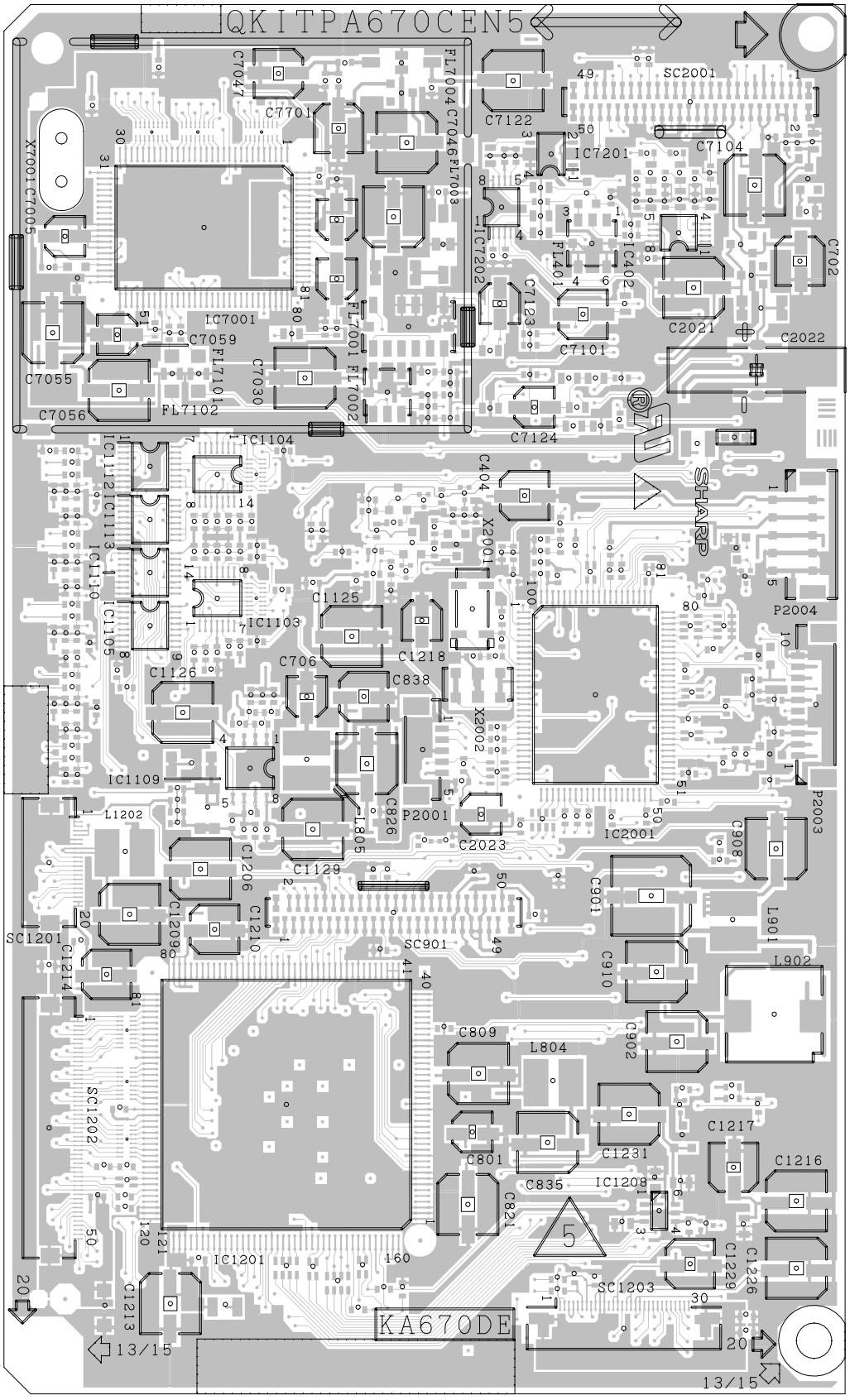
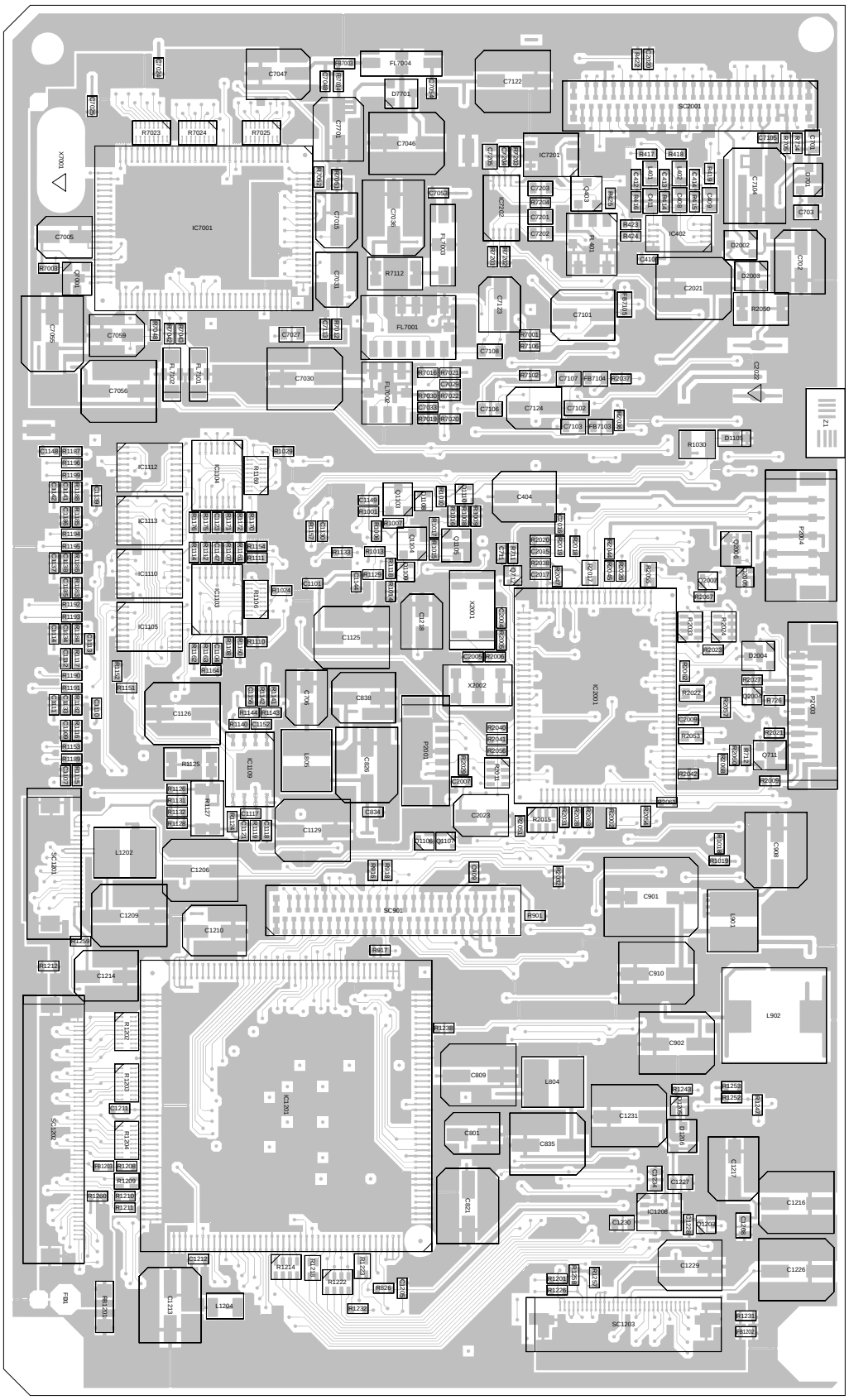


ANALOG Unit (Chip Parts Side-A)

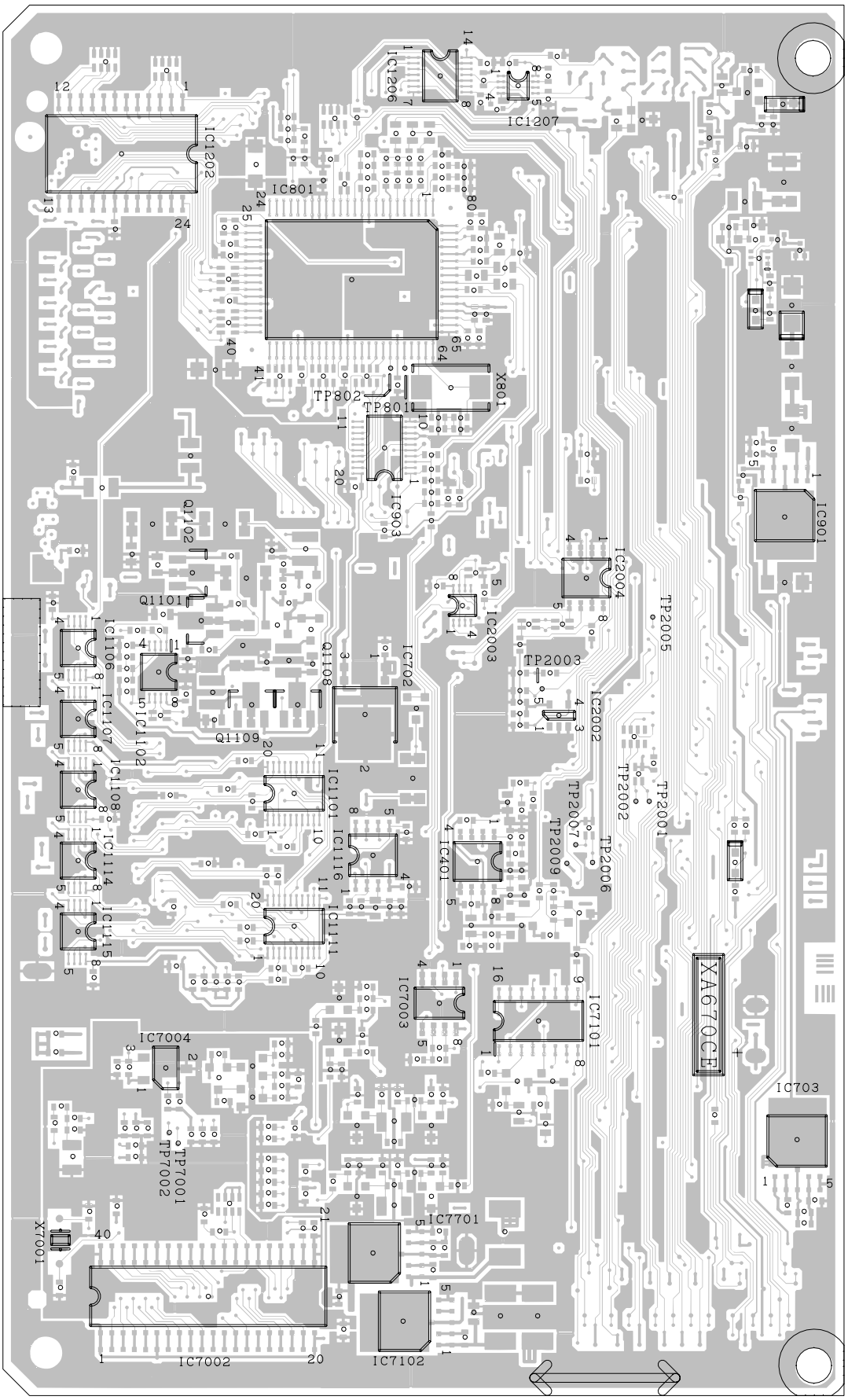
10	11	12	13	14	15	16	17	18	19



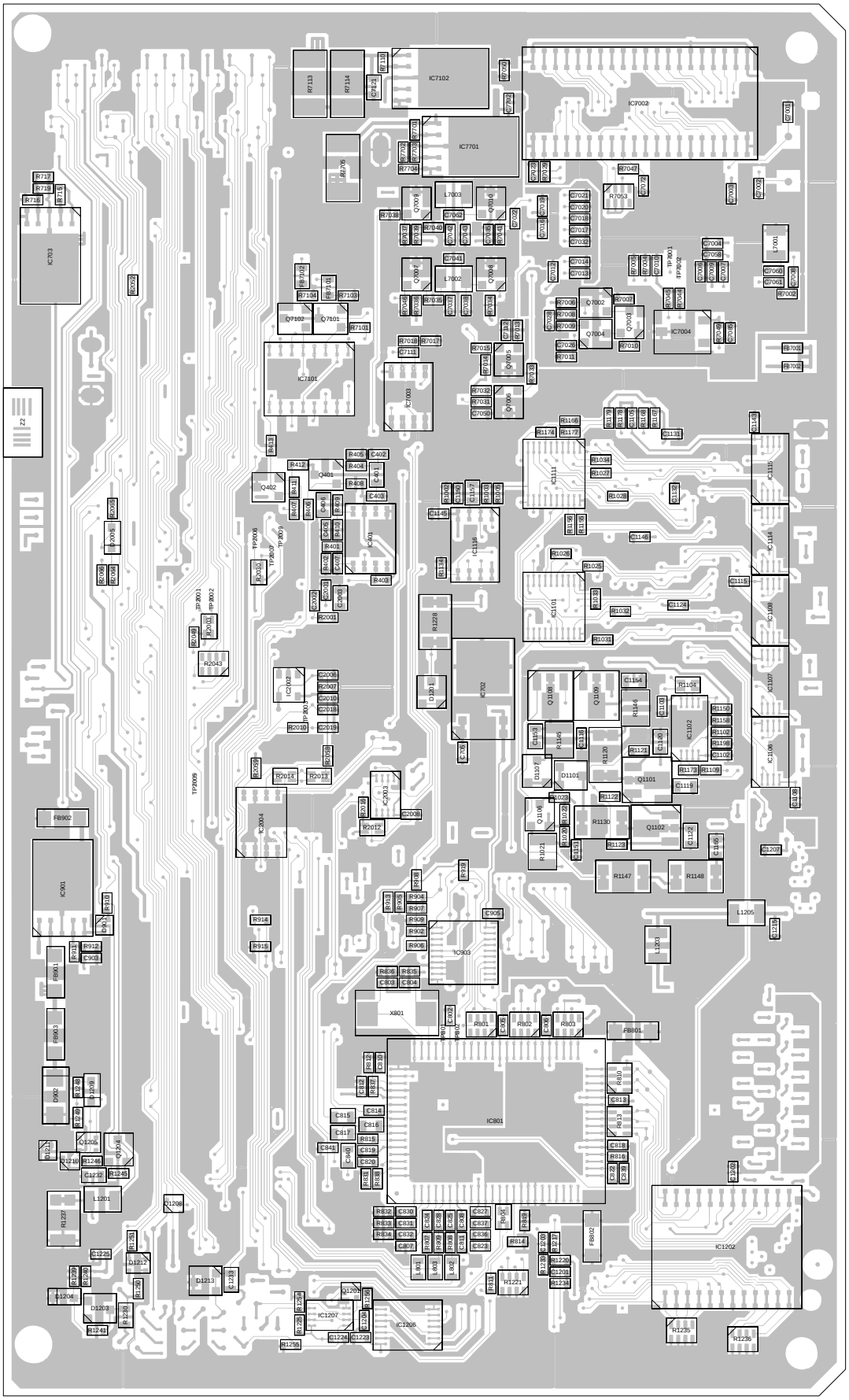
DIGITAL Unit (Side-A)



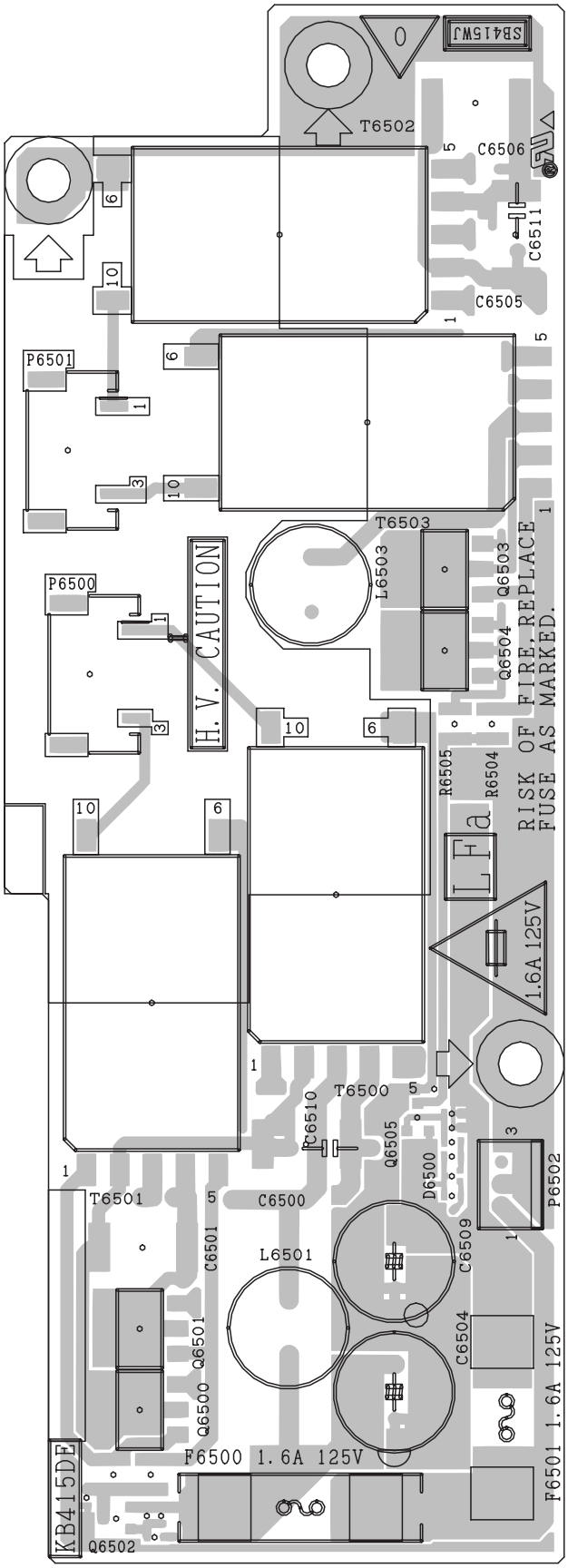
DIGITAL Unit (Chip Parts Side-A)



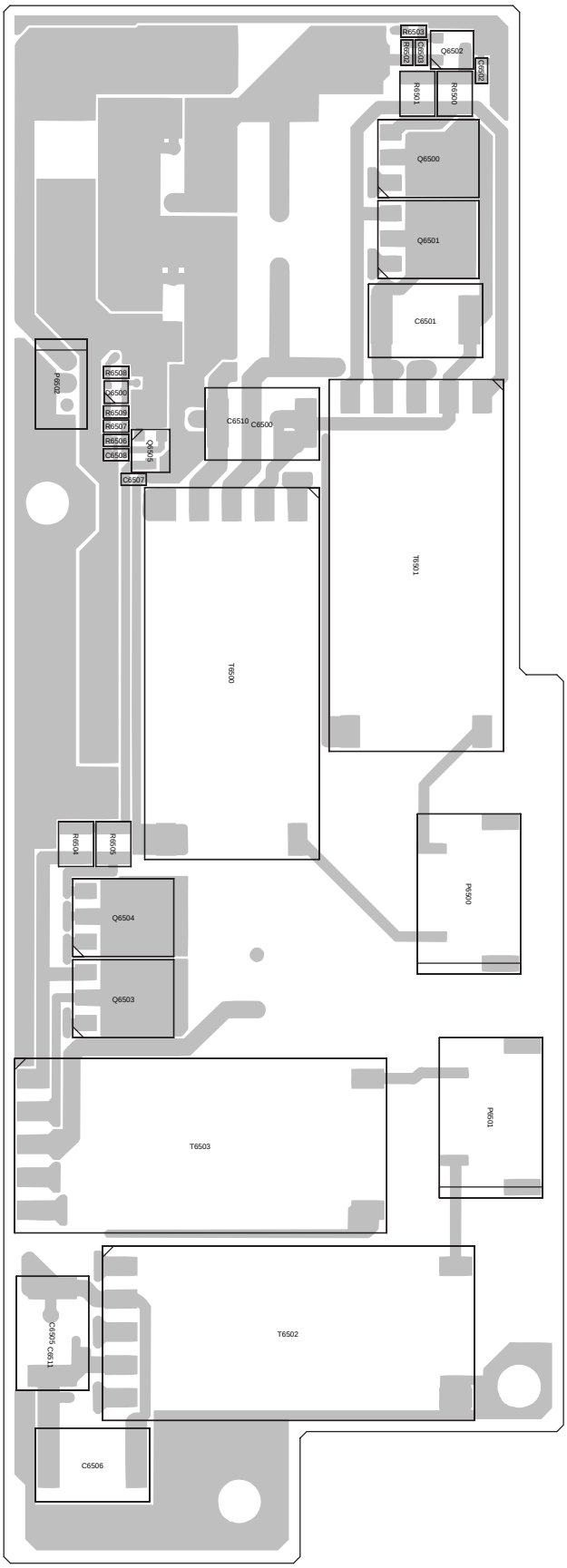
DIGITAL Unit (Side-B)



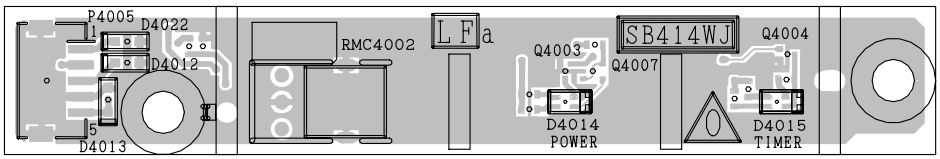
DIGITAL Unit (Chip Parts Side-B)



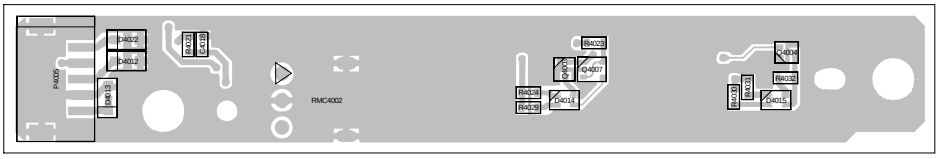
INVERTER Unit (Component Side)



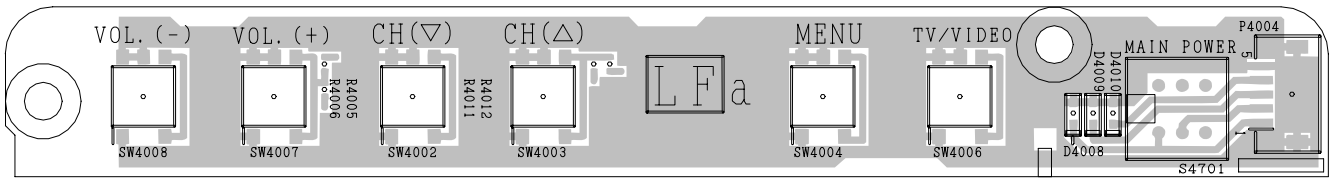
INVERTER Unit (Chip Parts Side)



R/C, LED Unit (Side-A)



R/C, LED Unit (Chip Parts Side-A)



CONTROL Unit (Side-A)
(QPWBSB413WJZZ)

CONTROL Unit (Chip Parts Side-A)
(QPWBSB413WJZZ)

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual; electrical components having such features are identified by ⚠ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which dose no have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

★ MARK: SPARE PARTS-DELIVERY SECTION

LISTE DES PIECES

CHANGE DES PIECES

Les pi`eces de rechange qui pr élelesentent ces caract éleristiques sp éleciales de s élecurit éle, sont identifi élees dans ce manuel : les pi`eces élelectriques qui pr élesentent ces particularit éles, sont rep éler élee par la marque ⚠ et sont hachur élees dans les listes de pi`eces et dans les diagrammes sch élematiques.
La substitution d'une pi`ece de rechange par une autre qui ne pr éLesente pas les m éoemes caract éLeristiques de s élecurit éle que la pi`ece recommand élee parl'usine et dans ce manuel de service, peut provoquer une éLelectrocution, un incendie ou toutautre sinistre.

"COMMENT COMMANDER LES PIECES DE RECHANGE"

Pour que votre commande soit rapidement et correctement remplie, veuillez fournir les renseignements suivants.

1. NUMERO DU MODELE
2. NO. DE REF
3. NO. DE PIECE
4. DESCRIPTION

in **CANADA**: Contact SHARP Electronics of Canada Limited Phone (416) 890-2100

★MARQUE: SECTION LIVRAISON DES PIECES DE RECHANGE

PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

LC-13E1U

Ref. No.	Part No.	★	Description	Code
	DUNTKA670FE27	–	DIGITAL Unit	—
	DUNTKB412DE01	–	ANALOG Unit	—
	DUNTKB413DE01	–	CONTROL Unit	—
	DUNTKB414DE01	–	R/C, LED Unit	—
	DUNTKB415DE01	–	INVERTER Unit	—

LC-15E1U

Ref. No.	Part No.	★	Description	Code
	DUNTKA670FE28	–	DIGITAL Unit	—
	DUNTKB412DE02	–	ANALOG Unit	—
	DUNTKB413DE02	–	CONTROL Unit	—
	DUNTKB414DE02	–	R/C, LED Unit	—
	DUNTKB415DE02	–	INVERTER Unit	—

LCD PANEL

Ref. No.	Part No.	★	Description	Code
	RLCDTA012WJZZ	J	13” LCD Panel Unit (LC-13E1U)	CV
	RLCDTA013WJZZ	J	15” LCD Panel Unit (LC-15E1U)	DB

DUNTKA670FE27(LC-13E1U) DUNTKA670FE28(LC-15E1U) DIGITAL UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC401	VHiBA7046F/-1Y	J	BA7046F	AF
IC402	VHiNJM2235V-1Y	J	NJM2235V	AE
IC702	VHiBA033FP/-1Y	J	BA033FP-E2	AG
IC703	VHiPQ20VZ11-1Y	J	PQ20VZ11	AG
IC801	VHiVPC3230D1EQ	J	VPC3230D-QA-B3	BD
IC1101	VHiMB8346BV-1Y	J	MB88346BPFV	AN
IC1102	VHiNJM4565V-1Y	J	NJM4565V	AF
IC1103	VHiNJM2060V-1Y	J	NJM2060V	AF
IC1104	VHiNJM2060V-1Y	J	NJM2060V	AF
IC1105	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1106	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1107	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1108	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1109	VHiNJM353M/-1Y	J	NJM353M	AG
IC1110	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1111	VHiMB8346BV-1Y	J	MB88346BPFV	AN
IC1112	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1113	VHiBU4053V/-1Y	J	BU4053BCFV-E2	AE
IC1114	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1115	VHiNJM4580V-1Y	J	NJM4580V	AE
IC1116	VHiNJM2147M-1Y	J	NJM2147M-TE1	AF
IC1201	RH-iX3378CEN1Q	J	LR38815	AY
IC1202	VHiPD485505-2Y	J	UPD485505G-25	AY
IC1206	VHiLVX125FT-1Y	J	TC74LVX125FT	AG
IC1207	VHiTC4W66U/-1Y	J	TC4W66FU	AE
IC1208	VHiPQ1R34++-1Y	J	PQ1R34	AE
IC2001	RH-iXA300WJZZQ	J	M306V0ME-172FP	AY
IC2002	VHiBD4746G+-1Y	J	BD4746G-TR	AD
IC2003	VHiTC4W66U/-1Y	J	TC4W66FU	AE
IC2004	VHiBR2416E2-1Y	J	BR24C16F	AK

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q401	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q402	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q711	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q712	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1101	VS2SA1729//-1Y	J	2SA1729	AF

DUNTKA670FE27(LC-13E1U)
DUNTKA670FE28(LC-15E1U)
DIGITAL UNIT (Continued)

Ref. No.	Part No.	★	Description	Code
Q1102	VS2SC4520//-1Y	J	2SC4520	AE
Q1103	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1104	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1105	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1106	VSFMMT718//-1Y	J	FMMT718	AE
Q1107	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1108	VS2SC4520//-1Y	J	2SC4520	AE
Q1109	VS2SA1729//-1Y	J	2SA1729	AF
Q1201	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1203	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1204	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q1205	VSUMX2N++++-1Y	J	UMX2N++++	AB
Q2004	VSDTC114EE/-1Y	J	DTC144EE	AB
Q2007	VSDTC144EE/-1Y	J	DTC144EE	AA

DIODES

D701	VHDDAN202K/-1Y	J	Diode	AB
D1101	VHD1SS250//1EY	J	Diode	AB
D1106	VHDDAN222//-1Y	J	Diode	AA
D1107	VHD1SS250//1EY	J	Diode	AB
D1108	VHDDAN222//-1Y	J	Diode	AA
D1109	VHDDAN222//-1Y	J	Diode	AA
D1110	VHDDAN222//-1Y	J	Diode	AA
D1201	VHD1SS250//1EY	J	Diode	AB
D1203	VHDRB491D++-1Y	J	Diode	AD
D1205	VHDDAN222//-1Y	J	Diode	AA
D1206	RH-EX0227CEZZY	J	Zener Diode	AB
D1208	VHDDAN222//-1Y	J	Diode	AA
D1209	RH-EX1247CEZZY	J	Zener Diode, 5.6V	AB
D1210	VHDDAN222//-1Y	J	Diode	AA
D1211	VHDDAN222//-1Y	J	Diode	AA
D1212	VHDRB481K++-1Y	J	Diode	AD
D2002	VHDRB491D++-1Y	J	Diode	AD
D2004	RH-DX0061GEZZY	J	Diode	AD

PACKAGED CIRCUITS

X801	RCRSC0012CEZZY	J	Crystal, 20.25MHz	AH
X2002	RFiLZ0169TAZZY	J	Filter	AD

COILS

L401	VP-9N4R7KR56NY	J	Peaking 4.7µH	AC
L402	VP-9N4R7KR56NY	J	Peaking 4.7µH	AC
L801	VP-9N3R3KR46NY	J	Peaking 3.3µH	AC
L802	VP-9N3R3KR46NY	J	Peaking 3.3µH	AC
L803	VP-9N3R3KR46NY	J	Peaking 3.3µH	AC
L804	RCiLC0055CEZZY	J	Coil	AD
L805	RCiLC0055CEZZY	J	Coil	AD
L1201	VP-1M470J5R4NY	J	Peaking 47µH	AC
L1202	RCiLC0055CEZZY	J	Coil	AD
L1203	VP-1M220J2R9NY	J	Peaking 22µH	AB
L1204	VP-1M220J2R9NY	J	Peaking 22µH	AB
L1205	VP-1M220J2R9NY	J	Peaking 22µH	AB

CAPACITORS

C401	VCKYTV1AB105KY	J	1	10V	Ceramic	AC
C402	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C403	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C404	VCEAPF0JW476MY	J	47	6.3V	Electrolytic	AB
C405	VCKYCY1HB222KY	J	2200p	50V	Ceramic	AA
C406	VCKYTV1AB105KY	J	1	10V	Ceramic	AC
C407	VCCCCY1HH101JY	J	100p	50V	Ceramic	AA
C408	VCKYTV1AB105KY	J	1	10V	Ceramic	AC
C409	VCKYTV1AB105KY	J	1	10V	Ceramic	AC
C410	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C411	VCKYTV1AB105KY	J	1	10V	Ceramic	AC
C412	VCCCCY1HH331JY	J	330p	50V	Ceramic	AA
C413	VCCCCY1HH331JY	J	330p	50V	Ceramic	AA
C414	VCCCCY1HH331JY	J	330p	50V	Ceramic	AA
C701	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C702	VCEAPF1CN226MY	J	22	16V	Electrolytic	AD
C703	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C705	VCKYCY1CF334ZY	J	0.33	16V	Ceramic	AB
C706	VCEAPF0JN226MY	J	22	6.3V	Electrolytic	AD
C711	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C801	VCEAPF1CN106MY	J	10	16V	Electrolytic	AD
C802	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C803	VCCCCY1HH7R0DY	J	7p	50V	Ceramic	AA
C804	VCCCCY1HH7R0DY	J	7p	50V	Ceramic	AA
C805	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C806	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C807	VCKYCY1HB331KY	J	330p	50V	Ceramic	AA
C808	VCKYCY1HB331KY	J	330p	50V	Ceramic	AA
C809	VCEAPF1CN107MY	J	100	16V	Electrolytic	AD
C810	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C811	VCKYCY1HB331KY	J	330p	50V	Ceramic	AA
C812	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C813	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C814	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C815	VCKYTV1CF684ZY	J	0.68	16V	Ceramic	AB
C816	VCKYTV1CF684ZY	J	0.68	16V	Ceramic	AB
C817	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C818	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C819	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C820	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C821	VCEAPF1CN107MY	J	100	16V	Electrolytic	AD
C822	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C823	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C824	VCKYCY1AB224KY	J	0.22	10V	Ceramic	AB
C825	VCKYCY1AB224KY	J	0.22	10V	Ceramic	AB
C826	VCEAPF0GW227MY	J	220	4V	Electrolytic	AD
C827	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C828	VCKYCY1AB224KY	J	0.22	10V	Ceramic	AB
C830	VCKYCY1CF224ZY	J	0.22	16V	Ceramic	AB
C831	VCKYCY1CF224ZY	J	0.22	16V	Ceramic	AB
C832	VCKYCY1CF224ZY	J	0.22	16V	Ceramic	AB
C834	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C835	VCEAPF1CW107MY	J	100	16V	Electrolytic	AC
C836	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C837	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C838	VCEAPF0GW107MY	J	100	4V	Electrolytic	AC
C839	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C840	VCKYTV1CF684ZY	J	0.68	16V	Ceramic	AB
C1101	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1102	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1103	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1104	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1105	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1107	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1108	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1109	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1110	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1111	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1112	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1113	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1114	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1115	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1116	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1117	VCCCCY1HH560JY	J	56p	50V	Ceramic	AB
C1118	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1119	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C1120	VCKYTV1EF104ZY	J	0.1	25V	Ceramic	AA
C1122	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C1123	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1124	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1125	VCEAPF1CN107MY	J	100	16V	Electrolytic	AD
C1126	RC-EZ1339CEZZY	J	220	16V	Electrolytic	AD
C1130	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1131	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1132	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1133	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1134	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1135	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1136	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1137	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1138	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1139	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1141	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1142	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA

DUNTKA670FE27(LC-13E1U)
DUNTKA670FE28(LC-15E1U)
DIGITAL UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
C1143	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1144	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1145	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1146	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1147	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1148	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1149	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1150	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1151	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1152	VCCCCY1HH181JY	J	180p	50V	Ceramic	AA
C1153	VCKYTV1HB103KY	J	0.01	50V	Ceramic	AA
C1154	VCKYTV1HB103KY	J	0.01	50V	Ceramic	AA
C1155	VCKYTV1CB334KY	J	0.33	16V	Ceramic	AC
C1156	VCCCCY1HH560JY	J	56p	50V	Ceramic	AB
C1157	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C1202	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1203	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1204	VCCCCY1HH220JY	J	22p	50V	Ceramic	AA
C1205	VCCCCY1HH220JY	J	22p	50V	Ceramic	AA
C1206	VCEAPF1HN106MY	J	10	50V	Electrolytic	AD
C1207	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1208	VCKYTV1HF104ZY	J	0.1	50V	Ceramic	AB
C1209	VCEASH0JN227MY	J	220	6.3V	Electrolytic	AC
C1210	VCEAPF0GW107MY	J	100	4V	Electrolytic	AC
C1211	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1212	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1213	VCEAPF1CW107MY	J	100	16V	Electrolytic	AC
C1214	VCEAPF0GW107MY	J	100	4V	Electrolytic	AC
C1215	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C1217	VCEAPF1HN475MY	J	4.7	50V	Electrolytic	AC
C1218	VCEAPF1CN106MY	J	10	16V	Electrolytic	AD
C1223	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1224	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1225	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C1226	VCEAPF1HN106MY	J	10	50V	Electrolytic	AD
C1227	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C1228	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C1229	VCEAPF1CN226MY	J	22	16V	Electrolytic	AD
C1230	VCKYTV1CB105KY	J	1	16V	Ceramic	AC
C1231	VCEAPF1CN107MY	J	100	16V	Electrolytic	AD
C1232	VCKYTV1HF104ZY	J	0.1	50V	Ceramic	AB
C2001	VCKYCY1HB102KY	J	1000p	50V	Ceramic	AA
C2002	VCCCCY1HH221JY	J	220p	50V	Ceramic	AA
C2003	VCKYTV1AB105KY	J	1	10V	Ceramic	AC
C2007	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2009	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2010	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2015	VCKYCY1HB561KY	J	560p	50V	Ceramic	AA
C2016	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2017	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C2018	VCCCCY1HH220JY	J	22p	50V	Ceramic	AA
C2020	VCKYCY1HB271KY	J	270p	50V	Ceramic	AA
C2021	VCEAPF1CW107MY	J	100	16V	Electrolytic	AC
C2023	VCEAPF1CN106MY	J	10	16V	Electrolytic	AD
C7104	VCEAPF1CN107MY	J	100	16V	Electrolytic	AD
C7105	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA

RESISTORS

R401	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R402	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R403	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R404	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R405	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R406	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R407	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R408	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R409	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R410	VRS-CY1JF474JY	J	470k	1/16W	Metal Oxide	AA
R412	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R414	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R415	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R416	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R417	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R418	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R419	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R423	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R705	VRS-CY1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R711	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R712	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R714	VRS-CY1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R715	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R716	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R717	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R726	VRS-CY1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R801	VRS-CB1JF221JY	J	220	1/16W	Metal Oxide	AC
R802	VRS-CB1JF220JY	J	22	1/16W	Metal Oxide	AC
R803	VRS-CB1JF220JY	J	22	1/16W	Metal Oxide	AC
R804	VRS-CA1JF101JY	J	100	1/16W	Metal Oxide	AA
R807	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R808	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R809	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R810	VRS-CB1JF220JY	J	22	1/16W	Metal Oxide	AC
R811	VRS-CY1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
R812	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R813	VRS-CB1JF220JY	J	22	1/16W	Metal Oxide	AC
R814	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R815	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R816	VRS-CY1JF470JY	J	47	1/16W	Metal Oxide	AA
R819	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R826	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R831	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R832	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R833	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R834	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R836	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R838	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R905	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R1001	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1002	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1003	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1005	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1006	VRS-CY1JF243FY	J	24k	1/16W	Metal Oxide	AA
R1007	VRS-CY1JF563FY	J	56k	1/16W	Metal Oxide	AA
R1008	VRS-CY1JF822FY	J	8.2k	1/16W	Metal Oxide	AA
R1009	VRS-CY1JF682FY	J	6.8k	1/16W	Metal Oxide	AA
R1013	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1014	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1016	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1017	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
R1019	VRS-CY1JF473JY	J	47k	1/16W	Metal Oxide	AA
R1020	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R1021	VRS-TW2ED102JY	J	1k	1/4W	Metal Oxide	AA
R1022	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1024	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1025	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1026	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1027	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1028	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1029	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1030	VRS-TW2ED150JY	J	15	1/4W	Metal Oxide	AA
R1031	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1032	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1033	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1034	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1102	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1104	VRS-CA1JF333JY	J	33k	1/16W	Metal Oxide	AA
R1106	VRS-CF1JP333JY	J	33k	1/16W	Metal Oxide	AC
R1107	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1108	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1109	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R1110	VRS-CY1JF104FY	J	100k	1/16W	Metal Oxide	AA
R1111	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1112	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1114	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1115	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1116	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1117	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1118	VRS-CY1JF563FY	J	56k	1/16W	Metal Oxide	AA

DUNTKA670FE27(LC-13E1U)
DUNTKA670FE28(LC-15E1U)
DIGITAL UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
R1119	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
R1120	VRS-TX2HF5R6JY	J	5.6	1/2W	Metal Oxide	AB
R1121	VRS-CY1JF181JY	J	180	1/16W	Metal Oxide	AA
R1123	VRS-CY1JF181JY	J	180	1/16W	Metal Oxide	AA
R1124	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
R1125	VRS-TX2HF101JY	J	100	1/2W	Metal Oxide	AA
R1126	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1127	VRS-TX2HF1R8JY	J	1.8	1/2W	Metal Oxide	AB
R1128	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R1129	VRS-CY1JF363FY	J	36k	1/16W	Metal Oxide	AA
R1130	VRS-TX2HF5R6JY	J	5.6	1/2W	Metal Oxide	AB
R1131	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R1132	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1134	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1140	VRS-CY1JF273FY	J	27k	1/16W	Metal Oxide	AA
R1142	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1143	VRS-CY1JF391JY	J	390	1/16W	Metal Oxide	AA
R1144	VRS-CY1JF391JY	J	390	1/16W	Metal Oxide	AA
R1145	VRS-TW2ED5R6JY	J	5.6	1/4W	Metal Oxide	AA
R1146	VRS-TW2ED8R2JY	J	8.2	1/4W	Metal Oxide	AA
R1147	VRS-TX2HF000JY	J	0	1/2W	Metal Oxide	AB
R1148	VRS-TX2HF100JY	J	10	1/2W	Metal Oxide	AB
R1150	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1151	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1152	VRS-CY1JF391JY	J	390	1/16W	Metal Oxide	AA
R1153	VRS-CY1JF680JY	J	68	1/16W	Metal Oxide	AA
R1154	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1157	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1158	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1160	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1161	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1162	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1163	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1164	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1166	VRS-CY1JF104FY	J	100k	1/16W	Metal Oxide	AA
R1167	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1168	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1169	VRS-CF1JP333JY	J	33k	1/16W	Metal Oxide	AC
R1170	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1171	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1172	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1173	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R1174	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1175	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1176	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1177	VRS-CY1JF683FY	J	68k	1/16W	Metal Oxide	AA
R1178	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R1179	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R1182	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1183	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1184	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1185	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1186	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1187	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1188	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R1189	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1190	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1193	VRS-CY1JF680JY	J	68	1/16W	Metal Oxide	AA
R1194	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1195	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1196	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1198	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1199	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1201	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1202	VRS-CF1JP220JY	J	22	1/16W	Metal Oxide	AC
R1203	VRS-CF1JP220JY	J	22	1/16W	Metal Oxide	AC
R1204	VRS-CF1JP220JY	J	22	1/16W	Metal Oxide	AC
R1208	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1209	VRS-CA1JF220JY	J	22	1/16W	Metal Oxide	AA
R1210	VRS-CY1JF220JY	J	22	1/16W	Metal Oxide	AA
R1211	VRS-CY1JF221JY	J	220	1/16W	Metal Oxide	AA
R1212	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1214	VRS-CB1JF101JY	J	100	1/16W	Metal Oxide	AA
R1217	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1218	VRS-CA1JF101JY	J	100	1/16W	Metal Oxide	AA
R1220	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R1221	VRS-CB1JF332JY	J	3.3k	1/16W	Metal Oxide	AC
R1222	VRS-CB1JF000JY	J	0	1/16W	Metal Oxide	AC
R1223	VRS-CA1JF101JY	J	100	1/16W	Metal Oxide	AA
R1225	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R1226	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1228	VRS-TX2HF330JY	J	33	1/2W	Metal Oxide	AB
R1230	VRS-TV1JD562JY	J	5.6k	1/10W	Metal Oxide	AA
R1231	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1232	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1233	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1234	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R1235	VRS-CB1JF473JY	J	47k	1/16W	Metal Oxide	AC
R1236	VRS-CB1JF473JY	J	47k	1/16W	Metal Oxide	AC
R1237	VRS-TX2HF472JY	J	4.7k	1/2W	Metal Oxide	AB
R1238	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R1240	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1243	VRS-CY1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R1245	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
R1246	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
R1247	VRS-CY1JF682JY	J	6.8k	1/16W	Metal Oxide	AA
R1248	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R1249	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R1250	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1251	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1252	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R1260	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R2001	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R2002	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2007	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2009	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R2010	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2011	VRS-CB1JF101JY	J	100	1/16W	Metal Oxide	AA
R2012	VRS-CA1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2013	VRS-CA1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2014	VRS-CA1JF101JY	J	100	1/16W	Metal Oxide	AA
R2015	VRS-CB1JF331JY	J	330	1/16W	Metal Oxide	AC
R2016	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2017	VRS-CA1JF102JY	J	1k	1/16W	Metal Oxide	AA
R2018	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2019	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R2020	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R2021	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R2022	VRS-CA1JF101JY	J	100	1/16W	Metal Oxide	AA
R2029	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2030	VRS-CA1JF333JY	J	33k	1/16W	Metal Oxide	AA
R2033	VRS-CB1JF101JY	J	100	1/16W	Metal Oxide	AA
R2036	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R2037	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R2041	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2044	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2045	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2052	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2053	VRS-CA1JF101JY	J	100	1/16W	Metal Oxide	AA
R2055	VRS-CA1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2056	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2057	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2058	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R2060	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R2061	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R2067	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R2068	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

FB801	RBLN-0090CEZZY	J	Ferrite Bead	AD
FB802	RBLN-0090CEZZY	J	Ferrite Bead	AD
FB1201	RBLN-0090CEZZY	J	Ferrite Bead	AD
FB1202	RBLN-0006TAZZY	J	Ferrite Bead	AB
FB1203	RBLN-0076TAZZY	J	Ferrite Bead	AC
P2001	QPLGN0558REZZY	J	Plug, 5-pin	AE
P2003	QPLGN1058REZZY	J	Plug, 10-pin	AD
P2004	QPLGN0165FJZZY	J	Plug, 5-pin	AD

Ref. No.	Part No.	★	Description	Code

DUNTKA670FE27(LC-13E1U)
DUNTKA670FE28(LC-15E1U)
DIGITAL UNIT (Continued)

SC1201	QSOCNA002WJPZY	J	Socket, 20-pin	AD
SC1202	QSOCN0687FJZZY	J	Socket, 50-pin	AF
SC1203	QSOCN0206FJZZY	J	Socket, 30-pin	AF
SC2001	QSOCN0464FJZZY	J	Socket, 50-pin	AH

Ref. No.	Part No.	★	Description	Code

DUNTKB412DE01(LC-13E1U)
DUNTKB412DE02(LC-15E1U)
ANALOG UNIT

TUNER

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

TU3201	VTUVT2U5UF553	J	Tuner	BC

INTEGRATED CIRCUITS

IC3301	VHiNJM4560M-1Y	J	NJM4560M	AG
IC3302	VHiNJM4560M-1Y	J	NJM4560M	AG
IC3303	VHiNJM4560M-1Y	J	NJM4560M	AG
IC3304	RH-iX3370CEN1Q	J	MSP3440G-QA-B8	AY
IC3305	VHiLA4635A+-1S	J	LA4635A	AM
IC3501	VHiTC4053BF1EY	J	TC4053BF	AF
IC3701	VHiNJM2377M-1Y	J	NJM2377M	AK
IC3702	VHiNJM2147M-1Y	J	NJM2147M-TE1	AF

TRANSISTORS

Q3201	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3202	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3303	VSDTA144EE/-1Y	J	DTA144EE	AA
Q3304	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3305	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3306	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3500	VSUMG4N++++-1Y	J	UMG4N++++	AB
Q3501	VS2SK1467//-1Y	J	2SK1467	AE
Q3502	VS2SK1467//-1Y	J	2SK1467	AE
Q3503	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3504	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3505	VSDTC114EE/-1Y	J	DTC114EE	AB
Q3510	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3511	VSDTC314TK/-1Y	J	DTC314TK	AC
Q3512	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q3600	VSUPA606T//-1Y	J	UPA606T	AD
Q3601	VSUPA606T//-1Y	J	UPA606T	AD
Q3700	VSFMMT718//-1Y	J	FMMT718	AE
Q3701	VSDTC144EE/-1Y	J	DTC114EE	AA
Q3702	VS2SK2503//-1Y	J	2SK2503	AE
Q3704	VSFMMT619//-1Y	J	FMMT619	AE
Q3706	VSiMZ1/////-1Y	J	IMZ1/////	AB
Q3707	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q3708	VSDTC114YE/-1Y	J	DTC114YE	AB
Q3709	VSFMMT718//-1Y	J	FMMT718	AE
Q3710	VSDTC144EE/-1Y	J	DTC114EE	AA

DIODES

D3301	RH-EX1396CEZZY	J	Zener Diode, 6.8V	AB
D3302	VHDDAN222//-1Y	J	Diode	AA
D3401	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D3402	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D3501	VHDDAN222//-1Y	J	Diode	AA
D3600	VHDiMN10///-1Y	J	Diode	AB
D3601	VHDiMN10///-1Y	J	Diode	AB
D3604	VHDDAN222//-1Y	J	Diode	AA
D3605	VHDDAN222//-1Y	J	Diode	AA
D3700	VHDDAN222//-1Y	J	Diode	AA
D3703	VHDSFPB56//2EY	J	Diode	AC
D3704	VHD1SS250//1EY	J	Diode	AB
D3705	VHD1SS250//1EY	J	Diode	AB
D3706	VHDSFPB74//2EY	J	Diode	AD
D3707	VHDSFPB74//2EY	J	Diode	AD
D3708	VHDDAN222//-1Y	J	Diode	AA
D3709	VHDDAN222//-1Y	J	Diode	AA
D3711	VHDDAN222//-1Y	J	Diode	AA

PACKAGED CIRCUIT

X3301	RCRSB0307CEZZ	J	Crystal, 18.432MHz	AG

COILS

L3201	VP-1M220J2R9NY	J	Peaking 22µH	AB
L3202	RCiLPA027WJZZ	J	Coil	AD
L3301	VP-1M101J7R7NY	J	Peaking 100µH	AC
L3302	VP-1M4R7J1R2NY	J	Peaking 4.7µH	AB
L3500	VP-1M101J7R7NY	J	Peaking 100µH	AC

DUNTKB412DE01(LC-13E1U)
DUNTKB412DE02(LC-15E1U)
ANALOG UNIT (Continued)

Ref. No.	Part No.	★	Description	Code
L3700	RCiLPA026WJZZ	J	Coil	AD
L3702	RCiLPA026WJZZ	J	Coil	AD
L3703	RCiLC0057CEZZY	J	Coil	AD
	TRANSFORMER			
⚠ T3701	RTRNW0010CEZZY	J	Transformer	AL
	CONTROL			
R3760	RVR-M0111CEZZY	J	1K(B) B+ Adj.	AC
	CAPACITORS			
C3201	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C3202	VCCCCY1HH330JY	J	33p 50V Ceramic	AA
C3203	VCCCCY1HH330JY	J	33p 50V Ceramic	AA
C3204	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3205	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3206	VCKYCY1HF103ZY	J	0.01 50V Ceramic	AA
C3208	RC-EZ1351CEZZ	J	3300 6.3V Electrolyitc	AF
C3210	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3301	VCKYCY1HB392KY	J	3900p 50V Ceramic (LC-15E1U)	AA
C3302	VCKYCY1HB392KY	J	3900p 50V Ceramic (LC-15E1U)	AA
C3303	VCKYCY1EB822KY	J	8200p 25V Ceramic (LC-15E1U)	AA
C3304	VCKYCY1HB392KY	J	3900p 50V Ceramic (LC-15E1U)	AA
C3305	VCKYCY1HB392KY	J	3900p 50V Ceramic (LC-15E1U)	AA
C3306	VCKYCY1EB822KY	J	8200p 25V Ceramic (LC-15E1U)	AA
C3308	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3309	VCKYCY1CB273KY	J	0.027 16V Ceramic (LC-15E1U)	AB
C3309	VCKYCY1EB223KY	J	0.022 25V Ceramic (LC-13E1U)	AA
C3310	VCKYCY1CB273KY	J	0.027 16V Ceramic (LC-15E1U)	AB
C3310	VCKYCY1EB223KY	J	0.022 25V Ceramic (LC-13E1U)	AA
C3311	VCKYCY1CB273KY	J	0.027 16V Ceramic	AB
C3312	VCKYCY1CB273KY	J	0.027 16V Ceramic	AB
C3313	VCKYCY1CB273KY	J	0.027 16V Ceramic (LC-15E1U)	AB
C3313	VCKYCY1EB223KY	J	0.022 25V Ceramic (LC-13E1U)	AA
C3314	VCKYCY1CB273KY	J	0.027 16V Ceramic (LC-15E1U)	AB
C3314	VCKYCY1EB223KY	J	0.022 25V Ceramic (LC-13E1U)	AA
C3315	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3316	VCKYCY1EB153KY	J	0.015 25V Ceramic	AA
C3317	VCKYCY1EB153KY	J	0.015 25V Ceramic	AA
C3318	VCKYCY1EB153KY	J	0.015 25V Ceramic	AA
C3319	VCKYCY1EB153KY	J	0.015 25V Ceramic	AA
C3320	VCEAPF1CN476MY	J	47 16V Electrolytic	AD
C3321	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3322	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3323	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3324	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3325	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3328	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3329	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3330	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3332	VCEAPF0JN107MY	J	100 6.3V Electrolytic	AD
C3333	VCEAPF1CN107MY	J	100 16V Electrolytic	AD
C3334	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3335	VCKYCY1HB222KY	J	2200p 50V Ceramic	AA
C3336	VCKYCY1HB222KY	J	2200p 50V Ceramic	AA
C3337	VCEAPF1CN106MY	J	10 16V Electrolytic	AD
C3338	VCEAPF1CN106MY	J	10 16V Electrolytic	AD
C3339	VCEAPF1HN335MY	J	3.3 50V Electrolytic	AD
C3340	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3341	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
C3342	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
C3343	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
C3344	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
C3345	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
C3346	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
C3349	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3350	VCEAPF1CN106MY	J	10 16V Electrolytic	AD
C3351	RC-KZ1025CEZZY	J	1 10V Ceramic	AB
C3352	VCEAPF0JN107MY	J	100 6.3V Electrolytic	AD
C3354	VCCCCY1HH560JY	J	56p 50V Ceramic	AB
C3355	VCCCCY1HH560JY	J	56p 50V Ceramic	AB
C3356	VCCCCY1HH560JY	J	56p 50V Ceramic	AB
C3357	VCCCCY1HH5R0CY	J	5.0p 50V Ceramic	AA
C3358	VCCCCY1HH5R0CY	J	5.0p 50V Ceramic	AA
C3359	VCEAPF1CN106MY	J	10 16V Electrolytic	AD
C3360	VCEAPF1CN107MY	J	100 16V Electrolytic	AD
C3361	VCEAPF1HN105MY	J	1 50V Electrolytic	AD
C3362	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C3363	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3364	VCEAPF1HN105MY	J	1 50V Electrolytic	AD
C3365	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C3366	VCEAPF1HN225MY	J	2.2 50V Electrolytic	AD
C3367	VCEAPF1CN106MY	J	10 16V Electrolytic	AD
C3368	VCEAPF1CN106MY	J	10 16V Electrolytic	AD
C3369	RC-EZ1274CEZZ	J	1000 16V Electrolytic	AD
C3370	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
C3371	VCEA4A1CN228M	J	2200 16V Electrolytic	AF
C3372	RC-EZ1274CEZZ	J	1000 16V Electrolytic	AD
C3375	VCKYCY1EB223KY	J	0.022 25V Ceramic (LC-13E1U)	AA
C3377	VCKYCY1EB223KY	J	0.022 25V Ceramic (LC-13E1U)	AA
C3380	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3382	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C3383	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3384	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3385	VCKYCY1HB472KY	J	4700p 50V Ceramic (LC-13E1U)	AA
C3386	VCKYCY1HB472KY	J	4700p 50V Ceramic (LC-13E1U)	AA
C3387	VCKYCY1HB471KY	J	470p 50V Ceramic (LC-13E1U)	AA
C3388	VCKYCY1HB471KY	J	470p 50V Ceramic (LC-13E1U)	AA
C3389	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3401	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3509	VCEAPF1CW107MY	J	100 16V Electrolytic	AC
C3510	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3512	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3513	VCEASH1CN477MY	J	470 16V Electrolytic	AD
C3514	VCEAPF0JW336MY	J	33 6.3V Electrolytic	AB
C3515	VCEAPF0JW226MY	J	22 6.3V Electrolytic	AB
C3516	RC-KZ1025CEZZY	J	1 10V Ceramic	AB
C3517	VCKYCY1EB223KY	J	0.022 25V Ceramic	AA
C3518	VCKYCY1EB223KY	J	0.022 25V Ceramic	AA
C3520	VCEAPF1EW475MY	J	4.7 25V Electrolytic	AB
C3521	VCEAPF1EW475MY	J	4.7 25V Electrolytic	AB
C3522	VCEAPF1CW106MY	J	10 16V Electrolytic	AB
C3600	VCKYTQ1EF105ZY	J	1 25V Ceramic	AD
C3601	VCKYTQ1EF105ZY	J	1 25V Ceramic	AD
C3602	VCKYTQ1EF105ZY	J	1 25V Ceramic	AD
C3603	VCKYTQ1EF105ZY	J	1 25V Ceramic	AD
C3700	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C3701	VCEAPF1EW475MY	J	4.7 25V Electrolytic	AB
C3702	RC-KZ1025CEZZY	J	1 10V Ceramic	AB
C3703	VCEAPT1CN226MY	J	22 16V Electrolytic	AC
C3704	VCCCCY1HH471JY	J	470p 50V Ceramic	AA
C3705	VCKYCY1EB103KY	J	0.01 25V Ceramic	AA
C3710	VCEASH1CN337MY	J	330 16V Electrolytic	AE
C3711	VCKYCY1HB562KY	J	5600p 50V Ceramic	AA
C3712	VCAAPF1CJ826MY	J	82 16V Electrolytic	AG
C3713	VCKYCY1HB562KY	J	5600p 50V Ceramic	AA
C3714	VCEASH1HN476MY	J	47 50V Electrolytic	AD
C3715	VCKYTV1HF104ZY	J	0.1 50V Ceramic	AB

DUNTKB412DE01(LC-13E1U)
DUNTKB412DE02(LC-15E1U)
ANALOG UNIT (Continued)

Ref. No.	Part No.	★	Description			Code
C3716	VCEASH1EN227MY	J	220	25V	Electrolytic	AE
C3717	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C3718	VCEASH1CN337MY	J	330	16V	Electrolytic	AE
C3719	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3720	VCCCCY1HH181JY	J	180p	50V	Ceramic	AA
C3721	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C3722	VCAAPF0JJ157MY	J	150	6.3V	Electrolytic	AG
C3724	VCEASH1CN337MY	J	330	16V	Electrolytic	AE
C3725	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C3727	VCEASH1CN477MY	J	470	16V	Electrolytic	AD
C3728	VCKYTV1CF105ZY	J	1	16V	Ceramic	AB
C3730	VCKYTV1HF104ZY	J	0.1	50V	Ceramic	AB
C3732	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C3733	RC-KZ1025CEZZY	J	1	10V	Ceramic	AB
C3734	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3735	VCKYCY1HF103ZY	J	0.01	50V	Ceramic	AA
C3740	VCKYCY1EF104ZY	J	0.1	25V	Ceramic	AA
C3741	VCEAPF1HN225MY	J	2.2	50V	Electrolytic	AD
C3750	VCEA4A1CN108M	J	1000	16V	Electrolytic	AD
R3201	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3202	VRS-CY1JF153JY	J	15k	1/16W	Metal Oxide	AA
R3203	VRS-CY1JF332JY	J	3.3k	1/16W	Metal Oxide	AA
R3204	VRS-CY1JF152JY	J	1.5k	1/16W	Metal Oxide	AA
R3205	VRS-CY1JF331JY	J	330	1/16W	Metal Oxide	AA
R3206	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3207	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3208	VRS-CA1JF561JY	J	560	1/16W	Metal Oxide	AA
R3303	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3304	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3305	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3306	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3307	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3308	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3309	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3310	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3311	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3312	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3315	VRS-CY1JF183FY	J	18k	1/16W	Metal Oxide	AA
R3316	VRS-CY1JF122JY	J	1.2k	1/16W	Metal Oxide	AA
R3317	VRS-CY1JF183FY	J	18k	1/16W	Metal Oxide	AA
R3318	VRS-CY1JF122JY	J	1.2k	1/16W	Metal Oxide	AA
R3319	VRS-CY1JF822FY	J	8.2k	1/16W	Metal Oxide	AA
R3320	VRS-CY1JF822FY	J	8.2k	1/16W	Metal Oxide	AA
R3321	VRS-CY1JF183FY	J	18k	1/16W	Metal Oxide	AA
R3322	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3322	VRS-CY1JF183JY	J	18k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3323	VRS-CY1JF183FY	J	18k	1/16W	Metal Oxide	AA
R3324	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3324	VRS-CY1JF183JY	J	18k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3325	VRS-CY1JF563FY	J	56k	1/16W	Metal Oxide	AA
R3326	VRS-CY1JF563FY	J	56k	1/16W	Metal Oxide	AA
R3327	VRS-CY1JF154FY	J	150k	1/16W	Metal Oxide	AA
R3328	VRS-CY1JF154FY	J	150k	1/16W	Metal Oxide	AA
R3331	VRS-CY1JF473JY	J	47k	1/16W	Metal Oxide	AA
R3332	VRS-CY1JF473JY	J	47k	1/16W	Metal Oxide	AA
R3333	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R3334	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R3335	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3336	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3337	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3338	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3341	VRS-CY1JF561JY	J	560	1/16W	Metal Oxide	AA
R3342	VRS-CY1JF561JY	J	560	1/16W	Metal Oxide	AA
R3343	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3344	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3345	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3346	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3347	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3348	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3350	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3351	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3353	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3354	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3355	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3357	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R3358	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R3359	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3360	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3361	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3362	VRS-CY1JF182JY	J	1.8k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3362	VRS-CY1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3363	VRS-CY1JF182JY	J	1.8k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3363	VRS-CY1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3364	VRS-CY1JF122JY	J	1.2k	1/16W	Metal Oxide	AA
R3365	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3365	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3366	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3366	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3367	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3369	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3370	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3371	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3372	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3373	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3375	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3375	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3376	VRS-CY1JF102FY	J	1k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3377	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3377	VRS-CY1JF472FY	J	4.7k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3378	VRS-CY1JF102FY	J	1k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3379	VRS-CY1JF822JY	J	8.2k	1/16W	Metal Oxide	AA
R3380	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3381	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R3382	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
			(LC-15E1U)			
R3383	VRS-CY1JF153JY	J	15k	1/16W	Metal Oxide	AA
R3384	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3386	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3387	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3388	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3389	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
			(LC-13E1U)			
R3399	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
			(LC-15E1U)			

DUNTKB412DE01(LC-13E1U)
DUNTKB412DE02(LC-15E1U)
ANALOG UNIT (Continued)

Ref. No.	Part No.	★			Description	Code
R3401	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3402	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3409	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3410	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3411	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3412	VRS-TQ2BD750JY	J	75	1/8W	Metal Oxide	AA
R3413	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3428	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R3429	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R3430	VRS-CY1JF750JY	J	75	1/16W	Metal Oxide	AA
R3431	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3432	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3433	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3434	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3523	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3524	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3528	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3529	VRS-CY1JF471JY	J	470	1/16W	Metal Oxide	AA
R3530	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3531	VRS-TQ2BD680JY	J	68	1/8W	Metal Oxide	AA
R3532	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3533	VRS-CY1JF680JY	J	68	1/16W	Metal Oxide	AA
R3534	VRS-CY1JF101JY	J	100	1/16W	Metal Oxide	AA
R3535	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R3536	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R3537	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
R3540	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3542	VRS-CY1JF680JY	J	68	1/16W	Metal Oxide	AA
R3543	VRS-CY1JF562JY	J	5.6k	1/16W	Metal Oxide	AA
R3544	VRS-CY1JF104JY	J	100k	1/16W	Metal Oxide	AA
R3545	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3546	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3547	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3550	VRS-TX2HF221JY	J	220	1/2W	Metal Oxide	AB
R3551	VRS-TX2HF221JY	J	220	1/2W	Metal Oxide	AB
R3552	VRS-CY1JF153JY	J	15k	1/16W	Metal Oxide	AA
R3553	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3558	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3561	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3562	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3600	VRS-CB1JF222JY	J	2.2k	1/16W	Metal Oxide	AC
R3604	VRS-CB1JF824JY	J	820k	1/16W	Metal Oxide	AC
R3607	VRS-CB1JF562JY	J	5.6k	1/16W	Metal Oxide	AC
R3610	VRS-CY1JF563JY	J	56k	1/16W	Metal Oxide	AA
R3700	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R3701	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3702	VRS-TW2ED102JY	J	1k	1/4W	Metal Oxide	AA
R3703	VRS-CY1JF274JY	J	270k	1/16W	Metal Oxide	AA
R3704	VRS-CY1JF133FY	J	13k	1/16W	Metal Oxide	AA
R3705	VRS-CY1JF184JY	J	180k	1/16W	Metal Oxide	AA
R3706	VRS-CY1JF100JY	J	10	1/16W	Metal Oxide	AA
R3707	VRS-CY1JF105JY	J	1M	1/16W	Metal Oxide	AA
R3708	VRS-CY1JF682JY	J	6.8k	1/16W	Metal Oxide	AA
R3710	VRS-CY1JF273FY	J	27k	1/16W	Metal Oxide	AA
R3716	VRS-TX2HF000JY	J	0	1/2W	Metal Oxide	AB
R3718	VRS-CE3AF821JY	J	820	1W	Metal Oxide	AC
R3721	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3722	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3724	VRS-CY1JF1R0JY	J	1	1/16W	Metal Oxide	AA
R3725	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3726	VRS-TQ2BD683JY	J	68k	1/8W	Metal Oxide	AA
R3727	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3728	VRS-CY1JF393JY	J	39k	1/16W	Metal Oxide	AA
R3730	VRS-CY1JF223JY	J	22k	1/16W	Metal Oxide	AA
R3731	VRS-CY1JF222JY	J	2.2k	1/16W	Metal Oxide	AA
R3732	VRS-CY1JF000JY	J	0	1/16W	Metal Oxide	AA
R3733	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3734	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R3735	VRS-CY1JF123FY	J	12k	1/16W	Metal Oxide	AA
R3736	VRS-CY1JF223FY	J	22k	1/16W	Metal Oxide	AA
R3737	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3738	VRS-CY1JF103FY	J	10k	1/16W	Metal Oxide	AA
R3739	VRS-CY1JF622FY	J	6.2k	1/16W	Metal Oxide	AA
R3740	VRS-CY1JF473FY	J	47k	1/16W	Metal Oxide	AA
R3741	VRS-CY1JF113FY	J	11k	1/16W	Metal Oxide	AA
R3742	VRS-CY1JF182FY	J	1.8k	1/16W	Metal Oxide	AA
R3743	VRS-CY1JF122FY	J	1.2k	1/16W	Metal Oxide	AA
R3745	VRS-CY1JF682FY	J	6.8k	1/16W	Metal Oxide	AA
R3746	VRS-CY1JF122FY	J	1.2k	1/16W	Metal Oxide	AA
R3749	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3750	VRS-CY1JF391JY	J	390	1/16W	Metal Oxide	AA
R3751	VRS-TV1JD103JY	J	10k	1/16W	Metal Oxide	AA
R3752	VRS-CY1JF102JY	J	1k	1/16W	Metal Oxide	AA
R3753	VRS-TX2HF000JY	J	0	1/2W	Metal Oxide	AB
R3754	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R3756	VRS-TX2HF000JY	J	0	1/2W	Metal Oxide	AB
R3758	VRS-TX2HF000JY	J	0	1/2W	Metal Oxide	AB
R3759	VRS-TW2ED102JY	J	1k	1/4W	Metal Oxide	AA
R3761	VRS-CY1JF272JY	J	2.7k	1/16W	Metal Oxide	AA
R3762	VRS-TW2ED561JY	J	560	1/4W	Metal Oxide	AA
R3766	VRS-CY1JF472JY	J	4.7k	1/16W	Metal Oxide	AA
R3901	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA
R3902	VRS-TQ2BD000JY	J	0	1/8W	Metal Oxide	AA

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
⚠ F3701	QFS-B2021GEZZ	J	Fuse, 2A/125V	AD
FH3701	QFSHD1002CEZZ	J	Fuse Holder	AA
FH3702	QFSHD1002CEZZ	J	Fuse Holder	AA
FB3301	RBLN-0006TAZZY	J	Ferrite Bead	AB
FB3302	RBLN-0035TAZZY	J	Ferrite Bead	AB
FB3700	RBLN-0095CEZZY	J	Ferrite Bead	AD
FB3701	RBLN-0095CEZZY	J	Ferrite Bead	AD
FB3704	RBLN-0051TAZZY	J	Ferrite Bead	AC
FB3705	RBLN-0051TAZZY	J	Ferrite Bead	AC
FB3706	RBLN-0254TAZZY	J	Ferrite Bead	AB
FB3707	RBLN-0254TAZZY	J	Ferrite Bead	AB
FB3708	RBLN-0051TAZZY	J	Ferrite Bead	AC
FB3709	RBLN-0095CEZZY	J	Ferrite Bead	AD
J3301	QJAKF0066CEZZ	J	AUDIO(L)/(R)(COMPONENT)	AE
J3401	QJAKG0085CEZZ	J	Y/PB/PR(COMPONENT)	AG
J3404	QJAKG0069CEZZ	J	AV IN(AV-IN2/OUT)	AG
J3407	QJAKG0068CEZZ	J	AV-IN1	AG
J3500	QJAKJ0046CEZZ	J	HEADPHONE	AE
J3701	QJAKE0193CEZZ	J	POWER INPUT(DC12V)	AK
P3500	QPLGN0278GEZZ	J	Plug, 2-pin	AA
P3501	QPLGN0278GEZZ	J	Plug, 2-pin	AA
P3601	QPLGN0478GEZZ	J	Plug, 4-pin	AB
P3702	QCNW-A698WJZZ	J	Connecting Cord (LC-15E1U)	AC
P3702	QCNW-A700WJZZ	J	Connecting Cord (LC-13E1U)	AC
P3703	QPLGN0378GEZZ	J	Plug, 3-pin	AB
SC3403	QSOCN0464FJZZY	J	Socket, 50-pin	AH
SC3405	QSOCD0456CEZZ	J	S-VIDEO(AV-IN1)	AE
	QCNW-A267WJZZ	J	Connecting Cord (P3503-P3504)	AK

Ref. No.	Part No.	★	Description	Code

DUNTKB413DE01(LC-13E1U)
DUNTKB413DE02(LC-15E1U)
CONTROL UNIT

DIODES

D4008	RH-EX1283CEZZY	J	Zener Diode, 18V	AB
D4009	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D4010	RH-EX1271CEZZY	J	Zener Diode, 12V	AB

RESISTORS

R4005	VRS-CY1JF123JY	J	12k 1/16W Metal Oxide	AA
R4006	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA
R4011	VRS-CY1JF123JY	J	12k 1/16W Metal Oxide	AA
R4012	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA

SWITCHES

S4701	QSW-P0035GEZZ	J	MAIN POWER	AF
SW4002	QSW-K0108CEZZY	J	CH(∨)	AD
SW4003	QSW-K0108CEZZY	J	CH(∧)	AD
SW4004	QSW-K0108CEZZY	J	MENU	AD
SW4006	QSW-K0108CEZZY	J	TV/VIDEO	AD
SW4007	QSW-K0108CEZZY	J	VOL(–)	AD
SW4008	QSW-K0108CEZZY	J	VOL(+)	AD

MISCELLANEOUS PARTS

P4004	QPLGN0564TAZZY	J	Plug, 5-pin	AC

Ref. No.	Part No.	★	Description	Code

DUNTKB414DE01(LC-13E1U)
DUNTKB414DE02(LC-15E1U)
R/C, LED UNIT

TRANSISTORS

Q4003	VSDTC144EE/-1Y	J	DTC144EE	AA
Q4004	VSDTC144EE/-1Y	J	DTC144EE	AA
Q4007	VSUMG4N++++-1Y	J	UMG4N++++	AB

DIODES

D4012	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D4013	RH-EX1271CEZZY	J	Zener Diode, 12V	AB
D4014	RH-PX0421CEZZY	J	POWER Indicator	AD
D4015	RH-PX0421CEZZY	J	SLEEP Indicator	AD
D4022	RH-EX1271CEZZY	J	Zener Diode, 12V	AB

CAPACITOR

C4018	RC-KZ1025CEZZY	J	1		10V	Ceramic	AB

RESISTORS

R4021	VRS-CY1JF101JY	J	100		1/16W	Metal Oxide	AA
R4023	VRS-CY1JF472JY	J	4.7k		1/16W	Metal Oxide	AA
R4024	VRS-CY1JF471JY	J	470		1/16W	Metal Oxide	AA
R4029	VRS-CY1JF472JY	J	4.7k		1/16W	Metal Oxide	AA
R4030	VRS-CY1JF472JY	J	4.7k		1/16W	Metal Oxide	AA

MISCELLANEOUS

RMC4002	RRMCU0239CEZZ	J	R/C Receiver	AG
P4005	QPLGN0564TAZZY	J	Plug, 5-pin	AC

Ref. No.	Part No.	★	Description	Code

DUNTKB415DE01(LC-13E1U)
DUNTKB415DE02(LC-15E1U)
INVERTER UNIT

TRANSISTORS

Q6500	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6501	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6502	VS2SA1530AR-1Y	J	2SA1530AR	AB
Q6503	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6504	VSFZT1053A/-1Y	J	FZT1053A	AG
Q6505	VS2SA1530AR-1Y	J	2SA1530AR	AB

DIODE

D6500	VHDDAN222//-1Y	J	Diode	AA

COILS

L6501	RCiLPA034WJZZ	J	Coil	AD
L6503	RCiLPA034WJZZ	J	Coil	AD

TRANSFORMERS

⚠ T6500	RTRNZ0805CEZZQ	J	Transformer				AM
⚠ T6501	RTRNZ0805CEZZQ	J	Transformer				AM
⚠ T6502	RTRNZ0805CEZZQ	J	Transformer				AM
⚠ T6503	RTRNZ0805CEZZQ	J	Transformer				AM

CAPACITORS

C6502	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6503	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6504	VCEA4A1CN108M	J	1000	16V	Electrolytic	AD
C6507	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6508	VCKYCY1CB473KY	J	0.047	16V	Ceramic	AA
C6509	VCEA4A1CN108M	J	1000	16V	Electrolytic	AD
C6510	RC-FZA034WJZZ	J	0.15	250V	Film	AE
C6511	RC-FZA034WJZZ	J	0.15	250V	Film	AE

RESISTORS

R6500	VRS-TW2ED332JY	J	3.3k	1/4W	Metal Oxide	AB
R6501	VRS-TW2ED332JY	J	3.3k	1/4W	Metal Oxide	AB
R6502	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R6503	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA
R6504	VRS-TW2ED332JY	J	3.3k	1/4W	Metal Oxide	AB
R6505	VRS-TW2ED332JY	J	3.3k	1/4W	Metal Oxide	AB
R6506	VRS-CY1JF103JY	J	10k	1/16W	Metal Oxide	AA
R6507	VRS-CY1JF333JY	J	33k	1/16W	Metal Oxide	AA

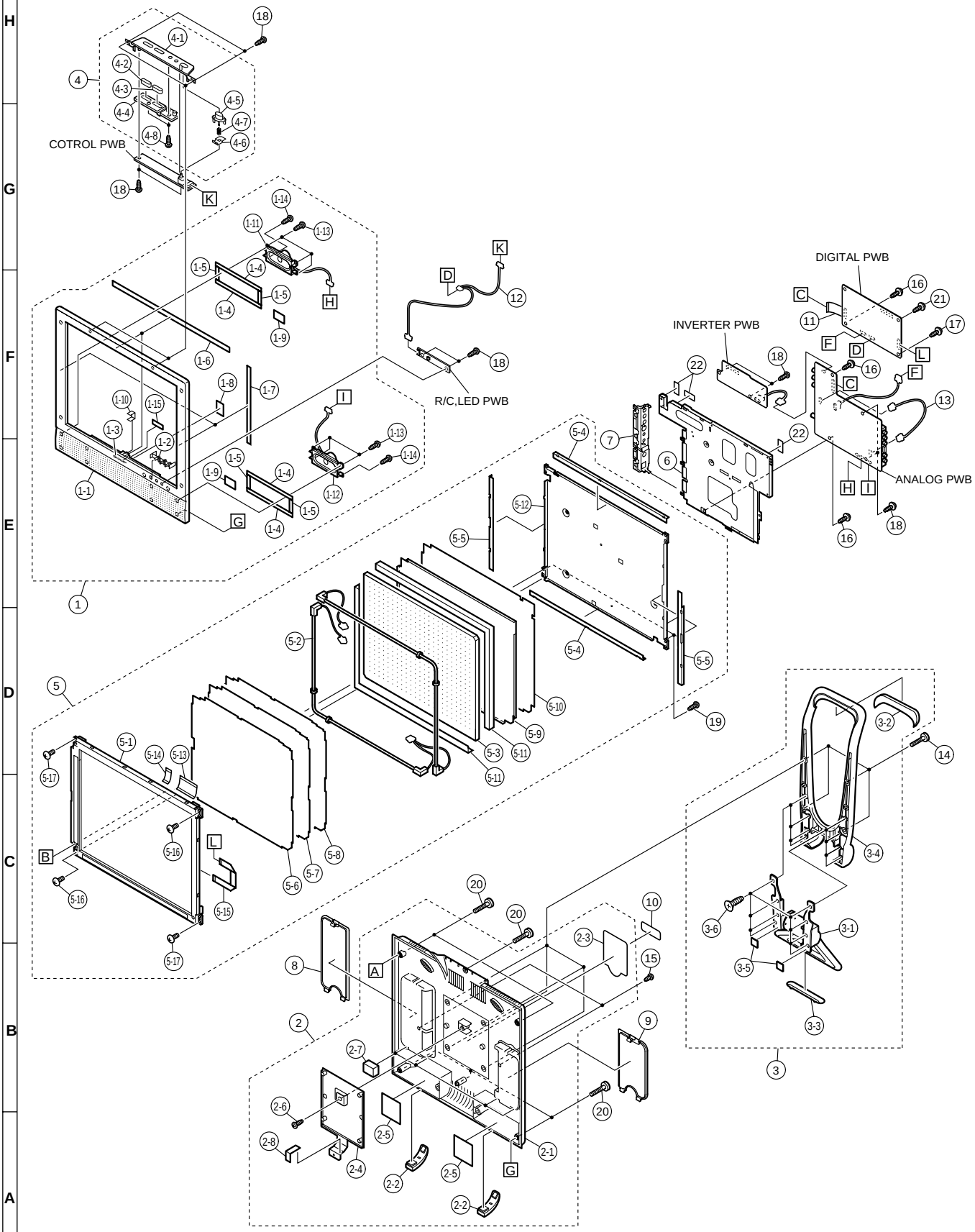
MISCELLANEOUS PARTS

⚠ F6500	QFS-B1621GEZZ	J	Fuse, 1.6A/125V	AD
⚠ F6501	QFS-B1621GEZZ	J	Fuse, 1.6A/125V	AD
FH6500	QFSHD1002CEZZ	J	Fuse Holder	AA
FH6501	QFSHD1002CEZZ	J	Fuse Holder	AA
FH6502	QFSHD1002CEZZ	J	Fuse Holder	AA
FH6503	QFSHD1002CEZZ	J	Fuse Holder	AA
P6500	QPLGN0155FJZZY	J	Plug, 3-pin	AE
P6501	QPLGN0155FJZZY	J	Plug, 3-pin	AE
P6502	QCNW-6071CEZZ	J	Connecting Cord, 3-pin	AD

CABINET AND MECHANICAL PARTS
MODEL : LC-13E1U

Ref. No.	Part No.	★	Description	Code
1	CCABAA092WJ01	J	Cabinet A Ass'y(LC-13E1U)	BG
1	CCABAA092WJ02	J	Cabinet A Ass'y(LC-13E1UB)	BG
1	CCABAA092WJ03	J	Cabinet A Ass'y(LC-13E1UW)	BG
1-1	*Not Available*	–	Cabinet A	—
1-2	GCOVA2020CEZZ	J	R/C, LED Cover	AF
1-3	*Not Available*	–	"SHARP" Badge	—
1-4	PSPAGA031WJZZ	J	Spacer, x4	AA
1-5	PSPAGA033WJZZ	J	Spacer, x4	AA
1-6	PSPAH0719CEZZ	J	Spacer, x2	AC
1-7	PSPAH0606CEZZ	J	Spacer, x2	AD
1-9	PSPAHA073WJZZ	J	Spacer, x2	AB
1-10	QEARZ0047CEZZ	J	Grounding Part	AC
1-11	VSP7530PB588B	J	Speaker(L)	AS
1-12	VSP7530PB598B	J	Speaker(R)	AS
1-13	XEBSD30P08000	J	Screw, x6	AA
1-15	PSPAH0623CEZZ	J	Spacer, x1	AB
2	CCABBA058WJ01	J	Cabinet B Ass'y(LC-13E1U)	BA
2	CCABBA058WJ02	J	Cabinet B Ass'y(LC-13E1UB)	BA
2	CCABBA058WJ03	J	Cabinet B Ass'y(LC-13E1UW)	BB
2-1	*Not Available*	–	Cabinet B	—
2-2	GLEGGA009WJSA	J	Leg, x2	AG
2-3	HiNDPA110WJSA	J	Model Label(LC-13E1U)	AG
2-3	HiNDPA173WJSA	J	Model Label(LC-13E1UB)	AG
2-3	HiNDPA175WJSA	J	Model Label(LC-13E1UW)	AG
2-4	LANGTA013WJFW	J	Reinforcement Angle	AL
2-5	PSPAGA043WJZZ	J	Spacer, x2	AC
2-6	XEBSD30P08000	J	Screw, x1	AA
3	CDAi-A021WJ01	J	Stand(LC-13E1U/UW)	BD
3	CDAi-A021WJ02	J	Stand(LC-13E1UB)	BD
3-1	*Not Available*	–	Stand, Base	—
3-2	GCOVA1945CESA	J	Stand Grip	AK
3-3	GLEGGA004WJSA	J	Leg, x1	AG
3-4	JHNDP0105CESA	J	Stand Handle(LC-13E1U/UW)	AW
3-4	JHNDP0105CESB	J	Stand Handle(LC-13E1UB)	AW
3-5	PSPAZ0415CEZZ	J	Spacer, x2	AB
3-6	XESSN40P10000	J	Screw, x8	AB
4	CCOVAA127WJ01	J	Top Cover Ass'y(LC-13E1U)	AR
4	CCOVAA127WJ02	J	Top Cover Ass'y(LC-13E1UB)	AR
4	CCOVAA127WJ03	J	Top Cover Ass'y(LC-13E1UW)	AR
4-1	*Not Available*	–	Top Cover	—
4-2	GCOVA1943CEKA	J	Button Cover(VOL)	AD
4-3	GCOVA1943CEKB	J	Button Cover(CH)	AD
4-4	JBTN-2076CEKA	J	Operation Button	AE
4-5	JBTN-A012WJKA	J	Power Button	AE
4-6	LHLDZA027WJKZ	J	Power Button Holder	AE
4-7	MSPRCA014WJFW	J	Power Button Spring	AB
4-8	XEBSD30P08000	J	Screw, x2	AA
5	*Not Available*	–	13" LCD Panel Unit Ass'y	—
5-1	RLCDTA012WJZZ	J	13" LCD Panel Unit	CV
⚠ 5-2	KLMP-0120CEZZ	J	Lamp Unit	BD
5-3	PGiDM0069CEZZ	J	Light Guide Panel	AZ
5-4	PMiR-0292CEZZ	J	Reflection Mirror, x2	AG
5-5	PMiR-0293CEZZ	J	Reflection Mirror, x2	AF
5-6	PSHEP0276CEZZ	J	Reflection/Deflection Sheet	BB
5-7	PSHEP0277CEZZ	J	Prism Sheet	AV
5-8	PSHEP0278CEZZ	J	Diffusion Sheet	AL
5-9	PSHEP0279CEZZ	J	Reflection Sheet-1	AG
5-10	PSHEP0280CEZZ	J	Reflection Sheet-2	AG
5-11	PSHEP0306CEZZ	J	Lamp Reflection Sheet (Cover), x2	AC
5-12	PSLDMA024WJFW	J	Back Shield Panel	AP
5-13	QCNW-6064CEZZ	J	Connecting Cord	AD
5-14	QCNW-6065CEZZ	J	Connecting Cord	AC
5-15	QCNW-6066CEZZ	J	Connecting Cord	AE
5-16	XBBSD30P05000	J	Screw, x2	AA
6	GCOVAA129WJKA	J	Chassis Frame(LC-13E1U)	AP
6	GCOVAA129WJKB	J	Chassis Frame(LC-13E1UB)	AP
6	GCOVAA129WJKC	J	Chassis Frame(LC-13E1UW)	AQ
7	GCOVA2103CEKA	J	Chassis Frame Cover (LC-13E1U)	AG
7	GCOVA2103CEKB	J	Chassis Frame Cover (LC-13E1UB)	AG
7	GCOVA2103CEKC	J	Chassis Frame Cover (LC-13E1UW)	AG
8	GCOVAA078WJKA	J	Terminal Cover(L) (LC-13E1U)	AL
8	GCOVAA078WJKB	J	Terminal Cover(L) (LC-13E1UB)	AK
8	GCOVAA078WJKC	J	Terminal Cover(L) (LC-13E1UW)	AK
9	GCOVAA079WJKA	J	Terminal Cover(S) (LC-13E1U)	AH
9	GCOVAA079WJKB	J	Terminal Cover(S) (LC-13E1UB)	AH
9	GCOVAA079WJKC	J	Terminal Cover(S) (LC-13E1UW)	AH
10	TLABNA073WJZZ	J	Serial No. Label (LC-13E1U)	AC
10	TLABNA129WJZZ	J	Serial No. Label (LC-13E1UB)	AC
10	TLABNA130WJZZ	J	Serial No. Label (LC-13E1UW)	AC
11	QCNW-6068CEZZ	J	Connecting Cord	AD
12	QCNW-A699WJZZ	J	Connecting Cord	AE
13	QCNW-A267WJZZ	J	Connecting Cord	AK
14	LX-BZ3442CEFF	J	Screw, x4(LC-13E1U/UB)	AB
14	LX-BZ3442CEFN	J	Screw, x4(LC-13E1UW)	AB
15	XBBSF30P05000	J	Screw, x2	AB
16	XBPSN30P09JS0	J	Screw, x3	AB
17	XEBSD30P06000	J	Screw, x1	AA
18	XEBSD30P08000	J	Screw, x10	AA
19	XEBSD30P12000	J	Screw, x2	AA
20	XEBSF30P20000	J	Screw, x6	AB

CABINET AND MECHANICAL PARTS



CABINET AND MECHANICAL PARTS

MODEL : LC-15E1U

Ref. No.	Part No.	★	Description	Code
1	CCABAA090WJ01	J	Cabinet A Ass'y(LC-15E1U)	BG
1	CCABAA090WJ02	J	Cabinet A Ass'y(LC-15E1UB)	BG
1	CCABAA090WJ03	J	Cabinet A Ass'y(LC-15E1UW)	BH
1-1	*Not Available*	–	Cabinet A	—
1-2	GCOVA2020CEZZ	J	R/C LED Cover	AF
1-3	*Not Available*	–	"SHARP" Badge	—
1-4	PSPAGA034WJZZ	J	Spacer, x4	AB
1-5	PSPAGA035WJZZ	J	Spacer, x4	AB
1-6	PSPAHA050WJZZ	J	Spacer, x2	AC
1-7	PSPAHA051WJZZ	J	Spacer, x2	AC
1-8	PSPAHA073WJZZ	J	Spacer, x1	AB
1-10	QEARZ0047CEZZ	J	Grounding Strap	AC
1-11	VSP7530PB588B	J	Speaker(L)	AS
1-12	VSP7530PB598B	J	Speaker(R)	AS
1-13	XEBSD30P08000	J	Screw, x6	AA
1-14	XEBSD30P08000	J	Screw, x2	AA
2	CCABBA056WJ01	J	Cabinet B Ass'y(LC-15E1U)	BB
2	CCABBA056WJ02	J	Cabinet B Ass'y(LC-15E1UB)	BB
2	CCABBA056WJ04	J	Cabinet B Ass'y(LC-15E1UW)	BC
2-1	*Not Available*	–	Cabinet B	—
2-2	GLEGGA008WJSA	J	Leg, x2	AF
2-3	HiNDPA108WJSA	J	Model Label(LC-15E1U)	AG
2-3	HiNDPA200WJSA	J	Model Label(LC-15E1UB)	AG
2-3	HiNDPA188WJSA	J	Model Label(LC-15E1UW)	AG
2-4	LANGT9061CEFW	J	Reinforcement Angle	BD
2-5	PSPAGA043WJZZ	J	Spacer, x2	AC
2-6	XEBSD30P08000	J	Screw, x1	AA
2-7	PMLT-A039WJZZ	J	Spacer, x4	
2-8	PSPAHA060WJKZ	J	Spacer, x1	AB
3	CDAi-A023WJ01	J	Stand(LC-15E1U/UW)	BD
3	CDAi-A023WJ02	J	Stand(LC-15E1UB)	BF
3-1	*Not Available*	–	Stand, Base	—
3-2	GCOVA1945CESA	J	Stand Grip	AK
3-3	GLEGGA004WJSA	J	Leg, x1	AG
3-4	JHNDP0105CESA	J	Stand Handle (LC-15E1U/UW)	AW
3-4	JHNDP0105CESB	J	Stand Handle(LC-15E1UB)	AW
3-5	PSPAZ0415CEZZ	J	Spacer, x2	AB
3-6	XESSN40P10000	J	Screw, x8	AB
4	CCOVAA127WJ01	J	Top Cover Ass'y(LC-15E1U)	AR
4	CCOVAA127WJ02	J	Top Cover Ass'y(LC-15E1UB)	AR
4	CCOVAA127WJ03	J	Top Cover Ass'y(LC-15E1UW)	AR
4-1	*Not Available*	–	Top Cover	—
4-2	GCOVA1943CEKA	J	Button Cover(VOL)	AD
4-3	GCOVA1943CEKB	J	Button Cover(CH)	AD
4-4	JBTN-2076CEKA	J	Operation Button	AE
4-5	JBTN-A012WJKA	J	Power Button	AE
4-6	LHLDZA027WJKZ	J	Power Button Holder	AE
4-7	MSPRCA014WJFW	J	Power Button Spring	AB
4-8	XEBSD30P08000	J	Screw, x2	AA
5	*Not Available*	–	15" LCD Panel Unit Ass'y	—
5-1	RLCDTA013WJZZ	J	15" LCD Panel Unit	DB
⚠ 5-2	KLMP-0122CEZZ	J	Lamp Unit	BD
5-3	PGiDM0070CEZZ	J	Light Guide Panel	BA
5-4	PMiR-0294CEZZ	J	Reflection Mirror, x2	AG
5-5	PMiR-0295CEZZ	J	Reflection Mirror, x2	AF
5-6	PSHEP0281CEZZ	J	Reflection/Deflection Sheet	BE
5-7	PSHEP0282CEZZ	J	Prism Sheet	AY
5-8	PSHEP0283CEZZ	J	Diffusion Sheet	AL
5-9	PSHEP0284CEZZ	J	Reflection Sheet-1	AG
5-10	PSHEP0285CEZZ	J	Reflection Sheet-2	AG
5-11	PSHEP0307CEZZ	J	Lamp Reflectin Sheet (Cover), x2	AC
5-12	PSLDM4689CEFW	J	Back Shield Panel	AR
5-13	QCNW-6064CEZZ	J	Connecting Cord	AD
5-14	QCNW-6065CEZZ	J	Connecting Cord	AC
5-15	QCNW-A069WJZZ	J	Connecting Cord	AF
5-16	XBBSD30P05000	J	Screw, x2	AA
5-17	XBBSD30P05000	J	Screw, x2	AA
6	GCOVA2105CEKA	J	Chassis Frame(LC-15E1U)	AP
6	GCOVA2105CEKB	J	Chassis Frame(LC-15E1UB)	AP
6	GCOVA2105CEKC	J	Chassis Frame(LC-15E1UW)	AP
7	GCOVA2103CEKA	J	Chassis Frame Cover (LC-15E1U)	AG
7	GCOVA2103CEKB	J	Chassis Frame Cover (LC-15E1UB)	AG
7	GCOVA2103CEKC	J	Chassis Frame Cover (LC-15E1UW)	AG
8	GCOVAA083WJKA	J	Terminal Cover(L) (LC-15E1U)	AK
8	GCOVAA083WJKB	J	Terminal Cover(L) (LC-15E1UB)	AK
8	GCOVAA083WJKC	J	Terminal Cover(L) (LC-15E1UW)	AK
9	GCOVAA082WJKA	J	Terminal Cover(S) (LC-15E1U)	AH
9	GCOVAA082WJKB	J	Terminal Cover(S) (LC-15E1UB)	AH
9	GCOVAA082WJKC	J	Terminal Cover(S) (LC-15E1UW)	AK
10	TLABNA070WJZZ	J	Serial No. Label(LC-15E1U)	AC
10	TLABNA141WJZZ	J	Serial No. Label(LC-15E1UB)	AC
10	TLABNA142WJZZ	J	Serial No. Label(LC-15E1UW)	AC
11	QCNW-A070WJZZ	J	Connecting Cord	AD
12	QCNW-A699WJZZ	J	Connecting Cord	AE
13	QCNW-A267WJZZ	J	Connecting Cord	AK
14	LX-BZ3442CEFF	J	Screw, x4(LC-15E1U/UB)	AB
14	LX-BZ3442CEFN	J	Screw, x4(LC-15E1UW)	AB
15	XBBSF30P05000	J	Screw, x2	AB
16	XBPSN30P09JS0	J	Screw, x3	AB
17	XEBSD30P06000	J	Screw, x1	AA
18	XEBSD30P08000	J	Screw, x10	AA
19	XEBSD30P12000	J	Screw, x2	AA
20	XEBSF30P20000	J	Screw, x6	AB
21	XEBSD30P06000	J	Screw, x1	AA
22	PSPAHA077WJZZ	J	Spacer, x3	AB

Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESSORIES

	LHLDW0109CESA	J	Cable Clamp, x2 (LC-13/15E1U/UW)	AD
	LHLDW0109CESB	J	Cable Clamp, x2 (LC-13/15E1UB)	AD
⚠	QACCD3097CEPA	J	AC Cord	AQ
	QCNWG0003CEPA	J	Antenna Cable	AM
	RRMCGA077WJSA	J	Infrared R/C Unit (LC-13/15E1U)	AS
	RRMCGA077WJSB	J	Infrared R/C Unit (LC-13/15E1UB)	AS
	RRMCGA077WJSC	J	Infrared R/C Unit (LC-13/15E1UW)	AS
	TiNS-A156WJZZ	J	Operation Manual	AS
⚠	UADP-A009WJPZ	J	AC Adapter	BG

SERVICE JIGS
(USE FOR SERVICING)

	QCNW-A323WJZZ	J	Extention Cable, 5-pin (P2004-P3702)	AD
	QCNW-A324WJZZ	J	Extention Cable, 50-pin (SC2001-SC3100)	AE
	QCNW-A553WJZZ	J	Extention Cable, 30-pin (SC1203-LCD)	BA
	QCNW-A555WJZZ	J	Extention Cable, 20-pin (SC1201-LCD)	AU
	QCNW-A556WJZZ	J	Extention Cable, 50-pin (SC1202-LCD)	AU

PACKING PARTS
(NOT REPLACEMENT ITEM)

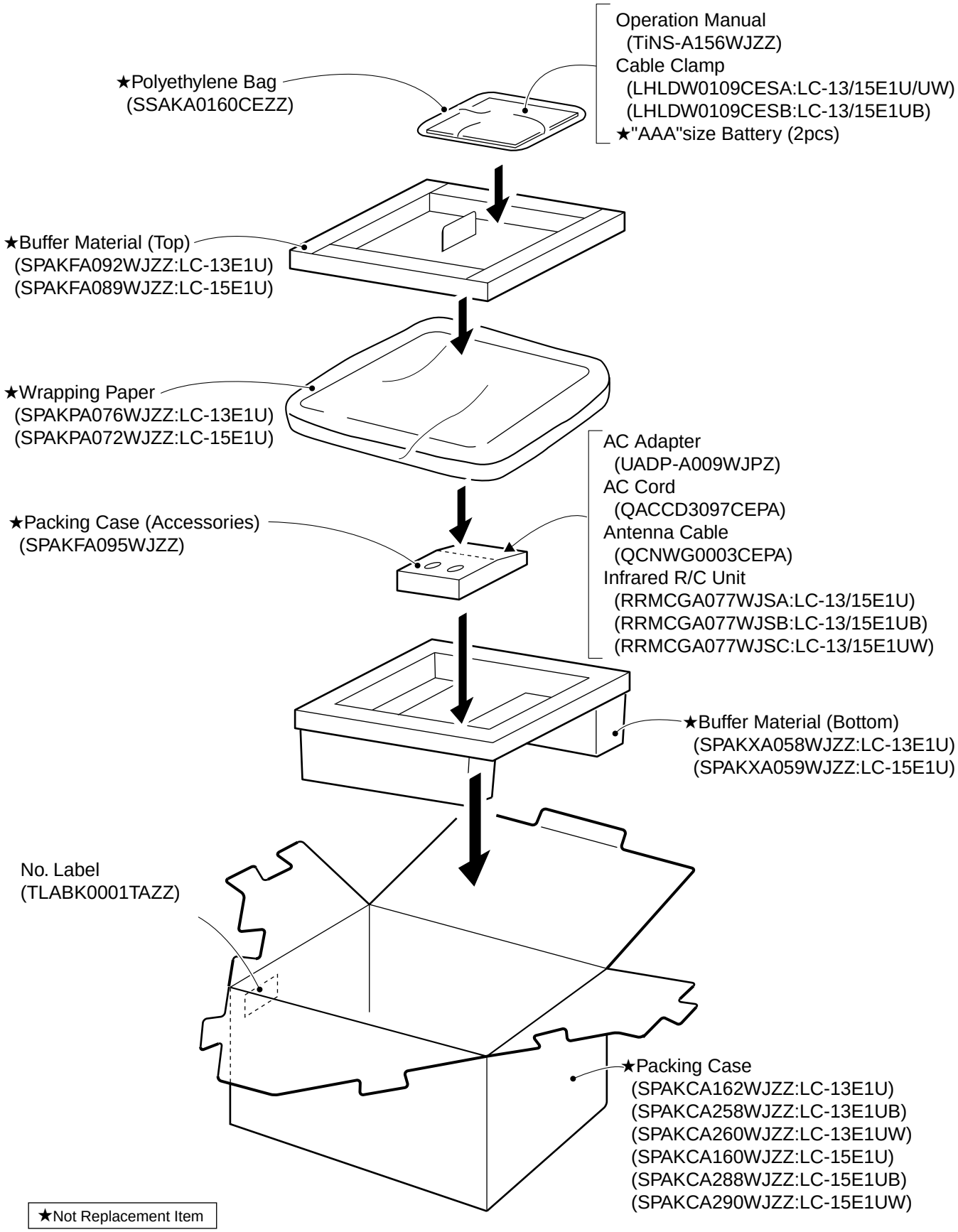
LC-13E1U

SPAKCA162WJZZ	–	Packing Case(LC-13E1U)	—
SPAKCA258WJZZ	–	Packing Case(LC-13E1UB)	—
SPAKCA260WJZZ	–	Packing Case(LC-13E1UW)	—
SPAKFA092WJZZ	–	Buffer Material (Top)	—
SPAKFA095WJZZ	–	Packing Case (Accessories)	—
SPAKPA076WJZZ	–	Wrapping Paper	—
SPAKXA058WJZZ	–	Buffer Material (Bottom)	—
SSAKA0160CEZZ	–	Polyethylene Bag	—
TLABK0001TAZZ	–	No. Label	—

LC-15E1U

SPAKCA160WJZZ	–	Packing Case(LC-15E1U)	—
SPAKCA288WJZZ	–	Packing Case(LC-15E1UB)	—
SPAKCA290WJZZ	–	Packing Case(LC-15E1UW)	—
SPAKFA089WJZZ	–	Buffer Material (Top)	—
SPAKFA095WJZZ	–	Packing Case (Accessories)	—
SPAKPA072WJZZ	–	Wrapping Paper	—
SPAKXA059WJZZ	–	Buffer Material (Bottom)	—
SSAKA0160CEZZ	–	Polyethylene Bag	—
TLABK0001TAZZ	–	No. Label	—

PACKING OF THE SET



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